

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 09-170319

(43)Date of publication of application : 30.06.1997

(51)Int.Cl.

E04F 13/08

(21)Application number : 07-349298

(71)Applicant : SUMITOMO FORESTRY CO LTD

(22)Date of filing : 20.12.1995

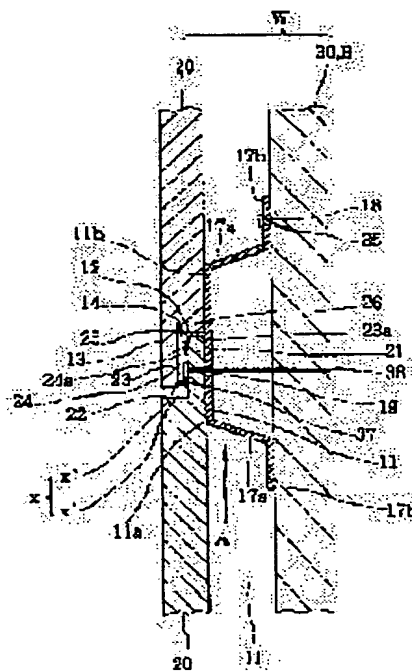
(72)Inventor : TETSURA YOSHINORI
ASANO FUMIHIKO
KISO MASAMITSU

(54) MOUNTING METAL-FITTING FOR EXTERIOR FINISHING MATERIAL

(57)Abstract:

PROBLEM TO BE SOLVED: To lock an exterior finishing material with a mounting area surely by forming a groove-shaped fit-in area which houses upper and lower exterior finishing materials respectively between first and second engagement boards projectingly provided on a bearing board and a bearing board.

SOLUTION: A holding board 12 is projectingly provided from a bearing board 11 which is mounted in a horizontal state with a mounting area B, such as a post and a stud 30 toward the opposite side to the mounting area. Then, a pair of first and second engagement boards 13 and 14 which are opposed to each other, are projectingly provided on the tip of the holding board 12 on an offset state. A space between the first engagement board 13 nearby the bearing board 11 and the bearing board 11 is formed as a groove-shaped fit-in area which houses a part of the upper end of an exterior finishing material 20 which is mounted to the lower side. A space between the second engagement board 14 which is far from the bearing board 11 and the bearing board 11 is formed as a groove-shaped fit-in area which partially houses the lower end of the exterior finishing material 20 which is mounted on the upper part.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

- ① [Number of appeal against examiner's decision of rejection]
- ② [Date of requesting appeal against examiner's decision of rejection]
- [Date of extinction of right]

Copyright (C); 1998,2000 Japan Patent Office

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] With bearing Itabe attached and used for the parallel status to the anchoring sections, such as a cylinder and a stud With hold Itabe who protrudes from this bearing Itabe towards a side opposite to a bearing Itabe's to this anchoring section anchoring side It has 2 engagement Itabe. the [of the couple which is in this hold Itabe's nose of cam side, and turns to an opposite side mutually, and protrudes on the not-in-class status / the 1st and] — Between 1st engagement Itabe and aforementioned bearing Itabe in the side near aforementioned bearing Itabe It considers as ***** in which a part of upper-limit section [at least] of the sheathing material attached to the lower part side is stored. And fixing metal of the sheathing material characterized by making between 2nd engagement Itabe and aforementioned bearing Itabe in a side far from aforementioned bearing Itabe into ***** to which a part of soffit section [at least] of the sheathing material attached to an upper part side is dedicated.

[Claim 2] The sense sense and engagement Itabe with whom hold Itabe is equipped cross at right angles to this hold Itabe so that bearing Itabe may be countered, Or it prepares for the sense which inclines towards the front from this hold Itabe. Between this bearing Itabe and 1st engagement Itabe is made into concave-like ***** or extension ***** which is attached to the lower part side and to which a part of upper-limit section [at least] of a sheathing material is dedicated. Fixing metal of the sheathing material concerning the claim 1 publication characterized by making between aforementioned bearing Itabe and 2nd engagement Itabe into concave-like ***** or extension ***** which is attached to an upper part side, and to which a part of soffit section [at least] of a sheathing material is dedicated.

[Claim 3] Fixing metal of the sheathing material concerning the claim 1 publication characterized by having the tripod plate section, and for bearing Itabe opening the spacing of parallel and 12mm - 25mm of abbreviation, and being attached by this tripod plate section to the anchoring section.

[Claim 4] Fixing metal of the sheathing material concerning the claim 3 publication characterized by constituting the tripod plate section with which bearing Itabe is equipped from this bearing Itabe's both-sides section by the piece of a foot which crooks or curves, and the piece of a decoration installed by the incurvation status so that it may become parallel to aforementioned bearing Itabe from the nose of cam side of this piece of a foot.

[Claim 5] Fixing metal of the sheathing material concerning the claim 3 publication characterized by constituting the tripod plate section with which bearing Itabe is equipped by the piece of a foot which protrudes from this bearing Itabe's plate surface, and the piece of a decoration installed in parallel with this bearing Itabe from the nose of cam side of this piece of a foot.

[Claim 6] the piece fraction of a decoration which is a piece of a decoration in the tripod plate section with which the anchoring section is decorated, is installed in the upper part from the piece of a foot in this tripod plate section, and is located more nearly up than bearing Itabe — insertion of a nail, a screw, etc. — the fixing metal of the sheathing material concerning the claim 4 or claim 5 publication characterized by having prepared the hole

[Claim 7] bearing Itabe decorated with the upper-limit section of the sheathing material attached to a lower part side — insertion of a nail, a screw, etc. — 1st engagement Itabe who constitutes

***** which dedicates at least the part by the side of the upper-limit section of this sheathing material with aforementioned bearing [tabe while the hole is prepared — this insertion — the fixing metal of the sheathing material concerning the claim 1 publication characterized by attaching the mark which shows the creation position of a hole

[Claim 8] Fixing metal of the sheathing material concerning the claim 1 publication characterized by having considered as the configuration whose bearing [tabe decorated with the upper-limit section of the sheathing material attached to a lower part side receives the upper part of this sheathing material that follows the male real part which constitutes the upper-limit section of this sheathing material, and this male real part.

[Translation done.]

*** NOTICES ***

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.

2.**** shows the word which can not be translated.

3.In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] This invention relates to offer of the fixing metal attached directly, without using vertical furring-strip material for sheathing materials, such as a ceramic industry system sheathing material, to a cylinder, a stud, etc. in case of the configuration of a wall etc.

[0002]

[Description of the Prior Art] As a typical anchoring means of the sheathing material in a wooden house etc., to the cylinder, the stud, etc., the vertical furring strip as wall substratum material was attached to a equipment and this vertical furring strip using various kinds of receptacle metallic ornaments, and sheathing materials, such as a cement system and a ceramic system, were constituted.

[0003] Typically, as shown in the drawing 19 and the drawing 20 , anchoring of the sheathing material 100 by such receptacle metallic-ornaments K attaches the sheathing material 100 located up one by one, and is made to constitute the target wall surface from a sheathing material 100 located in the outside of a cylinder and the stud 101 to a equipment and this vertical furring strip 103 in the vertical furring strip 103 through a tarpaulin 102 at the lower berth using the aforementioned receptacle metallic-ornaments K.

[0004] Receptacle metallic-ornaments K used for anchoring of such a sheathing material 100. The field of the vertical furring strip 103 is touched mostly, and this vertical furring strip 103 is received. in the anchoring ***** Kd position While protruding on the sense which carries out an abbreviation rectangular cross to the field of Itabe Ka attached firmly by the firm attachment meanses 104, such as a nail and a screw, and this Itabe Ka Level Itabe Kb who had Itabe Kc parallel to this Itabe Ka at the nose of cam constitutes, and it is in this Itabe's Kb inferior-surface-of-tongue side. With Itabe Ka It is in the slot-like concavity of inferior-surface-of-tongue opening surrounded by Itabe Kc again at Itabe's Kb top side about male real part 100a in the upper part side of the sheathing material 100 attached to the lower berth. With Itabe Ka As female real part 100b in the lower part side of the sheathing material 100 attached to an upper case is dedicated to the slot-like concavity of top opening surrounded by Itabe Kc, respectively and was put into it, it was attached to it, and it was used for it.

[0005] The sheathing material 100 attached by such receptacle metallic-ornaments K is considered as the configuration which equipped the decoration side to the vertical furring strip 103 along the upper-limit edge with male real part 100a which stood up in the shape of a level difference, and was equipped with female real part 100b to which this male real part is settled in the decoration side to the vertical furring strip 103 along the soffit edge. Therefore, this male real part 100a is stored in the **** receptacle concavity in receptacle metallic-ornaments K to upper-limit male real part 100a of the sheathing material 100 in a lower part side. Receptacle metallic-ornaments K was attached decoratively, and this sheathing material 100 and where Itabe Ka in receptacle metallic-ornaments K is stuck to the vertical furring strip 103, it was considering as the configuration equipped with this sheathing material 100 which receives and attaches metallic-ornaments K to the vertical furring strip 103 by the firm attachment means

104.

[0006] Subsequently, while female real part 100b in the soffit fraction of the sheathing material 100 with which the upper part side of this attachment sheathing material 100 is equipped is stored in the **** [in / it receives and / metallic-ornaments K] receptacle concavity to which it was attached firmly by the aforementioned vertical furring strip 103 Male real part 100a in the upper limit was equipped with receptacle metallic-ornaments K like the above, and one by one, this sheathing material 100 was turned to the upper case side, was attached, and consisted of a lower-berth side.

[0007]

[Problem(s) to be Solved by the Invention] However, if it is in each receptacle metallic-ornaments K used for a watch of such a sheathing material 100 The slot-like concavity of inferior-surface-of-tongue opening which accepts male real part 100a of a sheathing material 100, The slot-like concavity of top opening which accepts female real part 100b of a sheathing material 100 all Since Itabe Kc who was formed successively by Itabe Kb to Itabe Ka and this **** Ka, and was made parallel to this **** Ka constitutes, by this receptacle metallic-ornaments K Male real part 100a in the sheathing material 100 with which the vertical furring strip 103 is equipped, and female real part 100b are constituted as a thing of the same board thickness dimension.

[0008] Consequently, the sheathing material 100 attached in the vertical furring strip 103 While the upper limit is stored in the slot-like concavity of inferior-surface-of-tongue opening in receptacle metallic-ornaments K The front of male real part 100a attached by this receptacle metallic-ornaments K by soffit protruding edge 100c in the sheathing material 100 equipped on the upper case Furthermore, if it is in a soffit side to considering as the configuration suppressed Trouble of the female real part 100b is only carried out by only the concavity equipped with the flute width of the slot-like concavity which accepts the aforementioned male real part 100a, and the same flute width. by the base of the slot-like concavity of this receptacle metallic-ornaments K The total weight of the sheathing material 100 which is besides in a section side is supported, and, moreover, the soffit side of this sheathing material 100 is considered as the configuration attached to the vertical furring strip 103 only according to the engagement force over this slot-like concavity of female real part 100b stored in this slot-like concavity.

[0009] moreover, between male real part 100a in the sheathing material 100 attached one by one if it is in the technique of starting, and the contact fractions of female real part 100b, and soffit protruding edge 100c and male real part 100a which is ahead of female real part 100b especially — an opening — there is nothing — rain — fault might be produced in the end

[0010] moreover, the soffit of this sheathing material 100 — setting — between female real part 100b and protruding edge 100c — rain — when the opening used in the end was constituted, a part for the dimension equivalent to the spacing of this opening constituted, configuration board thickness of the aforementioned female real part 100b, or configuration board thickness of the aforementioned protruding edge 100c needed to be made thin

[0011] Moreover, from the convenience which strikes the firm attachment means 104 against a slanting lower part to the vertical furring strip 103, such receptacle metallic-ornaments K is attached in receptacle metallic-ornaments K, forms ***** Kc, decorates the field of the vertical furring strip 103 with this anchoring ***** Kc, and has considered it as the **** configuration for firm attachment by the firm attachment meanses 104, such as a nail.

[0012] If it is in such receptacle metallic-ornaments K, the firm attachment construction by the firm attachment meanses 104, such as a nail of this receptacle metallic-ornaments K, is difficult, and, moreover, the sheathing material 100 is considered as the configuration which is not directly attached firmly on a nail, a screw, etc. to the vertical furring strip 103.

[0013] Moreover, if it was in the technique of starting, the space surrounded by each vertical furring strip 103 had fault, such as producing stay in the concerned space by them, at the air in this space, since a tarpaulin 102 and the sheathing material 100 consider as the space which became independent to each.

[0014] Furthermore, if it was in the technique of starting, the field in which male real part 100a in

Itabe Ka of receptacle metallic-ornaments K is accepted is usually constituted from the ejection width of face of this male real part 100a by narrow, and there was fault, such as breaking, without male real part 100a in the sheathing material 100 attached to receptacle metallic-ornaments K expecting in the fraction which is not supported by this Itabe Ka.

[0015] while the fixing metal of the sheathing material concerning this invention attaches firmly the sheathing material which constitutes a wall etc. directly and certainly to structure material, such as a cylinder and a stud, — the attachment fraction between sheathing materials — this fixing metal — rain — it aims at offer of the fixing metal which constitutes the opening for the ends and constitutes the opening moreover opened for free passage by the series which furring-strip material etc. does not **** to the anchoring medial surface of a sheathing material [0016]

[Means for Solving the Problem] With bearing Itabe 11 who attaches fixing-metal A of the sheathing material concerning invention of a claim 1 in the parallel status to anchoring section B, such as a cylinder and a stud, and is used in order that this invention may attain each aforementioned purpose With hold Itabe 12 who protrudes from this bearing Itabe 11 towards a side opposite to a bearing Itabe's 11 to this anchoring section B anchoring side It has 2 engagement Itabe. the [of the couple which is in this hold Itabe's 12 nose of cam side, and turns to an opposite side mutually, and protrudes on the not-in-class status / the 1st and] — Between 1st engagement Itabe 13 and aforementioned bearing Itabe 11 in the side near aforementioned bearing Itabe 11 It considers as ***** 15 in which a part of upper-limit section [at least] of the sheathing material 20 attached to the lower part side is stored. And between 2nd engagement Itabe 14 and aforementioned bearing Itabe 11 in a side far from aforementioned bearing Itabe 11 is constituted as ***** 16 to which a part of soffit section [at least] of the sheathing material 20 attached to an upper part side is dedicated.

[0017] Subsequently, are in fixing-metal A concerning invention of the aforementioned claim 1 about fixing-metal A of the sheathing material concerning invention of a claim 2, and engagement Itabe with whom hold Itabe 12 is equipped receives this hold Itabe 12 so that bearing Itabe 11 may be countered. It prepares for the sense which intersects perpendicularly and which is suitable or inclines towards the front from this hold Itabe 12. Between this bearing Itabe 11 and 1st engagement Itabe 13 is made into concave-like ***** 15 or extension ***** 15 which is attached to the lower part side and to which a part of upper-limit section [at least] of a sheathing material is dedicated. Between aforementioned bearing Itabe 11 and 2nd engagement Itabe 14 is considered as the configuration made into concave-like ***** 16 or extension ***** 16 which is attached to an upper part side, and to which a part of soffit section [at least] of a sheathing material 20 is dedicated.

[0018] Furthermore, it is in fixing-metal A concerning invention of the aforementioned claim 1 about fixing-metal A of the sheathing material concerning invention of a claim 3, and bearing Itabe 11 has the tripod plate section 17, and it has considered as the configuration which opens the spacing of parallel and 12mm – 25mm of abbreviation, and is attached by this tripod plate section 17 to anchoring section B.

[0019] Moreover, piece of foot 17a which crooks or curves the tripod plate section 17 with which is in fixing-metal A concerning invention of the aforementioned claim 3, and bearing Itabe 11 is equipped in fixing-metal A of the sheathing material concerning invention of a claim 4 from this bearing Itabe's 11 both-sides section, Piece of decoration 17b installed by the incurvation status so that it may become parallel to aforementioned bearing Itabe 11 from the nose of cam side of this piece of foot 17a constitutes.

[0020] furthermore — again — a claim — five — invention — starting — a sheathing material — fixing metal — A — the above — a claim — three — invention — starting — fixing metal — A — it is — bearing — Itabe — 11 — having — having — a tripod plate — the section — 17 — this — bearing — Itabe — 11 — a plate surface — **** — protruding — having — a foot — a piece — 17 — a — ' — this — a foot — a piece — 17 — a — ' —

[0021] Subsequently, it is in fixing-metal A concerning invention of the aforementioned claim 4 or the claim 5 about fixing-metal A of the sheathing material concerning invention of a claim 6 again. It is piece of decoration 17b and 17b' in the tripod plate section 17 with which anchoring

section B is decorated. piece of decoration 17b which is installed in the upper part from piece of foot 17a in this tripod plate section 17, and 17a', and is located more nearly up than bearing Itabe 11, and a 17b' fraction — insertion of a nail, a screw, etc. — it has considered as the configuration in which the hole 18 is formed

[0022] Subsequently, it is in fixing-metal A concerning invention of the aforementioned claim 1 about fixing-metal A of the sheathing material concerning invention of a claim 7 further. bearing Itabe 11 decorated with the upper-limit section of the sheathing material 20 attached to a lower part side — insertion of a nail, a screw, etc., while the hole 19 is formed 1st engagement Itabe 13 who constitutes ***** 15 which dedicates at least the part by the side of the upper-limit section of this sheathing material 20 with aforementioned bearing Itabe 11 — this insertion — it has considered as the configuration which attached mark y which shows the creation position of a hole 19

[0023] Furthermore, it is in fixing-metal A concerning invention of the aforementioned claim 1 about fixing-metal A of the sheathing material concerning invention of a claim 8, and has considered as the configuration in which bearing Itabe 11 decorated with the upper-limit section of the sheathing material 20 attached to a lower part side can receive the upper part of this sheathing material 20 that follows the standup protruding edge 21 which constitutes the male real part in the upper-limit section of this sheathing material 20, and the ***** protruding edge 21.

[0024]

[Embodiments of the Invention] Hereafter, the gestalt of each operation of each typical fixing-metal A concerning this invention is explained in detail. Fixing-metal A of the sheathing material which drawing 15 — view 18 requires for the gestalt of the 4th operation in fixing-metal A of the sheathing material which drawing 11 — view 14 requires for the gestalt of the 3rd operation in fixing-metal A of the sheathing material which drawing 7 — view 10 requires for the gestalt of the 2nd operation in fixing-metal A of the sheathing material which drawing 1 — view 6 requires for the gestalt of the 1st operation is shown.

[0025] first, the busy condition of fixing-metal A which starts the gestalt of the 1st operation in drawing 1 — it is shown and the longitudinal section of an important section shows the main components of wall W in the state of the separation tropia in the state of the plane cross section with drawing 2 in drawing 3 moreover — drawing 4 — this fixing-metal A — in the state of the tropia, from the side face, this is seen from a transverse plane and drawing 5 shows this in drawing 6

[0026] Subsequently, with drawing 8, drawing 7 shows fixing-metal A concerning the gestalt of the 2nd operation as important section longitudinal section of the busy condition, it is the tropia about fixing-metal A used for this, and in drawing 9, from the side face, looks at this from a transverse plane, and shows this in drawing 10.

[0027] Furthermore, with drawing 12, drawing 11 shows fixing-metal A concerning the gestalt of the 3rd operation as important section longitudinal section of the busy condition, it is the tropia about fixing-metal A used for this, and in drawing 13, from the side face, looks at this from a transverse plane, and shows this in drawing 14.

[0028] Moreover, with drawing 16, drawing 15 shows fixing-metal A concerning the gestalt of the 4th operation as important section longitudinal section of the busy condition, it is the tropia about fixing-metal A used for this, and in drawing 17, from the side face, looks at this from a transverse plane, and shows this in drawing 18.

[0029] First, fixing-metal A of the sheathing material concerning the gestalt of this operation With bearing Itabe 11 attached and used for the parallel status to anchoring section B, such as a cylinder and a stud With hold Itabe 12 who protrudes from this bearing Itabe 11 towards a side opposite to a bearing Itabe's 11 to this anchoring section B anchoring side It has 2 engagement Itabe. the [of the couple which is in this hold Itabe's 12 nose of cam side, and turns to an opposite side mutually, and protrudes on the not-in-class status / the 1st and] — Between 1st engagement Itabe 13 and aforementioned bearing Itabe 11 in the side near aforementioned bearing Itabe 11 It considers as ***** 15 in which a part of upper-limit section [at least] of the sheathing material 20 attached to the lower part side is stored. And between 2nd

engagement Itabe 14 and aforementioned bearing Itabe 11 in a side far from aforementioned bearing Itabe 11 is constituted as ***** 16 to which a part of soffit section [at least] of the sheathing material 20 attached to an upper part side is dedicated.

[0030] Thus, if it is in constituted fixing-metal A, to ***** 15 in which the upper-limit fraction of the sheathing material 20 attached to a lower part side is stored, ***** 16 in which the soffit fraction of the sheathing material 20 attached to an upper part side is stored is constituted broadly, and a sheathing material 20 is certainly attached firmly by fixing-metal A equipped with the large receptacle side to anchoring section B, such as a cylinder.

[0031] 2nd engagement Itabe 14 with whom hold Itabe 12 is equipped is formed in the position distant from bearing Itabe 11 the nose of cam side rather than 1st engagement Itabe 13 with whom this hold Itabe 12 is equipped in the not-in-class status. as a result, with moreover, 1st engagement Itabe 13 It can constitute as configuration space between 1st engagement [X / opening / for rain informal Noh dances] Itabe 13 to this fixing-metal A between 2nd engagement Itabe 14, and 2nd engagement Itabe 14.

[0032] Furthermore, bearing Itabe 11 who constitutes the decoration side of a sheathing material 20 can be formed in the parallel status to anchoring section B, space H which continued at a series between this sheathing material 20 and the anchoring object of this sheathing material 20 can be constituted, and it can consider as the configuration which the stay space of air does not produce inside [attachment] a sheathing material 20.

[0033] Without using wall substratum material, especially furring-strip material for a sheathing material 20, to structure material, such as a cylinder and a stud, anchoring can be made directly possible and, moreover, necessary space H can consist of using fixing-metal A inside [anchoring] this sheathing material 20.

[0034] Subsequently, the sense sense and engagement Itabe with whom is in the aforementioned fixing-metal A and hold Itabe 12 is equipped cross at right angles to this hold Itabe 12 so that bearing Itabe 11 may be countered, Or it prepares for the sense which inclines towards the front from this hold Itabe 12. Between this bearing Itabe 11 and 1st engagement Itabe 13 is made into concave-like ***** 15 or extension ***** 15 which is attached to the lower part side and to which a part of upper-limit section [at least] of a sheathing material is dedicated. Between aforementioned bearing Itabe 11 and 2nd engagement Itabe 14 makes it one of the gestalt of other typical operations to have considered as the configuration made into concave-like ***** 16 or extension ***** 16 which is attached to an upper part side, and to which a part of soffit section [at least] of a sheathing material 20 is dedicated.

[0035] Thus, if it is in constituted fixing-metal A, the fixing metal which can correspond effectively and which inserted each other in and was equipped with the section can be constituted to each mode of the configuration [each other] which the gestalt of a sheathing material 20 and the female real part especially corresponding to male real part and this insert in, and the rain informal Noh dance in each ***** of male real part and female real part in each sheathing materials 20 and 20.

[0036] Furthermore, it is in the aforementioned fixing-metal A, and bearing Itabe 11 has the tripod plate section 17, and it is making into one of the gestalt of other typical operations to have considered as the configuration which opens the spacing of parallel and 12mm - 25mm of abbreviation, and is attached by this tripod plate section 17 to anchoring section B.

[0037] If it is in fixing-metal A which consists of such a configuration, space H with an opening width of face of 12mm - 25mm can be constituted in the mode which is open for free passage all over the medial surface of this sheathing material 20 for anchoring section B and each sheathing material 20 attached in this, and stay space of air is not produced inside the sheathing material 20 watch for is kept by this.

[0038] Moreover, piece of foot 17a which crooks or curves the tripod plate section 17 with which is in the aforementioned fixing-metal A and bearing Itabe 11 is equipped from this bearing Itabe's 11 both-sides section, It is making into one of the gestalt of other typical operations to have constituted by piece of decoration 17b installed by the incurvation status so that it may become parallel to aforementioned bearing Itabe 11 from the nose of cam side of this piece of foot 17a.

[0039] Thus, if it is in constituted fixing-metal A, while bearing Itabe 11 as a decoration anchoring side of a sheathing material 20 can be constituted in the certainly parallel status to this anchoring section B to anchoring section B, the firm bearing side which can support the tooth back of a sheathing material 20 certainly can be brought to this fixing-metal A.

[0040] furthermore — again — the above — fixing metal — A — it is — bearing — Itabe — 11 — having — having — a tripod plate — the section — 17 — this — bearing — Itabe — 11 — a plate surface — **** — protruding — having — a foot — a piece — 17 — a — ' — this — a foot — a piece — 17 — a — ' — a nose of cam — a side — **** — this — bearing — Itabe — 11 — parallel — installing — having — a decoration —

[0041] Thus, if it is in constituted fixing-metal A, it is constituted by long width of face, and piece of decoration 17b' is the one of fields, and can conform to the field of anchoring section B effectively to each mode of the anchoring side of anchoring section B that what is necessary is to just be attached firmly to the decoration status.

[0042] Subsequently, piece of decoration 17b in the tripod plate section 17 with which is in the aforementioned fixing-metal A and anchoring section B is decorated again, the pieces 17b and 17b' of a decoration which are 17b', are installed in the upper part from piece of foot 17a in this tripod plate section 17, and 17a', and are located more nearly up than bearing Itabe 11 — ' — a fraction — insertion of a nail, a screw, etc. — what the hole 18 established is made into one of the gestalt of other typical operations

[0043] Thus, fixing-metal A can be attached decoratively and attached ease and certainly to anchoring section B, without being barred by anchoring bearing Itabe 11 of the anchoring sheathing material 20 or the sheathing material 20 if it is in constituted fixing-metal A.

[0044] subsequently, bearing Itabe 11 decorated with the upper-limit section of the sheathing material 20 which is in the further aforementioned fixing-metal A, and is attached to a lower part side — insertion of a nail, a screw, etc., while the hole 19 is formed 1st engagement Itabe 13 who constitutes ***** 15 which dedicates at least the part by the side of the upper-limit section of this sheathing material 20 with aforementioned bearing Itabe 11 — this insertion — it is making into one of the gestalt of other typical operations to have considered as the configuration which attached mark y which shows the creation position of a hole 19

[0045] Thus, if it is in constituted fixing-metal A, while the sheathing material 20 with which fixing-metal A is decorated can be directly attached firmly certainly with a screw, a nail, etc. to anchoring section B in the male real part of this sheathing material 20, the sheathing material 20 by this screw, the nail, etc. can be attached easily.

[0046] Furthermore, it is making into one of the gestalt of the operation with still typical others to have considered as the configuration which can receive the upper part of this sheathing material 20 that follows the standup protruding edge 21 which constitutes the male real part which is in the aforementioned fixing-metal A and has bearing Itabe 11 decorated with the upper-limit section of the sheathing material 20 attached to a lower part side in the upper-limit section of this sheathing material 20, and this standup protruding edge 21.

[0047] Thus, if it is in constituted fixing-metal A, a part for the sheathing-material book soma with which the real part which follows this male real part is not equipped, i.e., the fraction equipped with sufficient board thickness, can be attached decoratively and attached to bearing Itabe 11 in this fixing-metal A with the male real part in the sheathing material 20 attached in this.

[0048] First, to the field which attached a cylinder, the stud 30, etc. with which the foundation etc. was stood up and equipped, and faced the outside of this anchoring section B as section B, towards the upper part side, wall W constituted by anchoring of the sheathing materials 20, such as sizing material using fixing-metal A concerning the gestalt of this operation, attaches a sheathing material 20 one by one, and consists of the lower part side.

[0049] Wall W by which the attachment configuration of such a sheathing material 20 is carried out For example, while interior material, such as a decorated board 32, is stretched and preparing in the interior-of-a-room side in a cylinder and the stud 30 through the tarpaulin 31 Where it infixed the heat insulators 33, such as glass wool, in the structure material space constituted [stud / this cylinder, / 30] and a tarpaulin 34 is put on the lateral surface of this heat insulator

33 It has considered as the configuration which equipped with the sheathing material 20 through predetermined space H to this cylinder and the stud 30 using the aforementioned fixing-metal A.

[0050] The sheathing material 20 attached and used for anchoring section B, such as a cylinder and the stud 30, by fixing-metal A here. For example, if the wall of houses, such as sizing material, etc., especially an outer wall are constituted A board, a panel, etc. may be the things of which made and make a ceramic industry system sheathing material etc. the example of a type in quality of the material. You may consist of any quality of the material, for example, minerals system board material, such as a calcium silicate plate, a slag cement plate, and a cemented excelsior board, various ceramic board material, etc. are used typically.

[0051] The sheathing material 20 used here carries out and uses rectangular board material sideways, and the edge which exists in the length orientation which constitutes the upper limit and soffit of a sheathing material 20 is met. ****, It has considered as the configuration made to be equipped with ****, respectively, this sheathing material 20 is turned to an upper case from the lower berth one by one, and it constitutes by keeping watch for it, as each real part is piled up in the mode of the sheathing material watch for is kept by the box joint flare status of *****.

[0052] Such a sheathing material 20 consists of making the front face of this standup protruding edge 21 into the concave step 22 of the notch status in the standup protruding edge 21 used as **** along the field with which the anchoring side side, i.e., fixing-metal A, which exists in the length orientation of a upper limit is decorated. Moreover, this sheathing material 20 is in the front face of this ***** 23 about ***** 23 used as **** to which the aforementioned standup and the protruding edge 21 are settled in the anchoring side side which exists in the length orientation of a soffit, and the suspension protruding edge 24 constituted so that this standup protruding edge 21 may be covered constitutes it.

[0053] furthermore, a head lining side [in / if it is in aforementioned ***** 23 / this ***** 23] — more intelligibly By fixing-metal A, the soffit side 23a fraction of the sheathing material 20 supported at this fixing-metal A in case a sheathing material 20 is held so that it may fit in ***** 16 of fixing-metal A explained later on **** 25 is formed on the extension wire of suspension side 24a in the ***** 23 side in the aforementioned suspension protruding edge 24, and it inserts in each other's fraction which this **** 25 *****ed including a soffit side 23a fraction, and constitutes as a heights 26.

[0054] (1) anchoring **** concerning the gestalt of the 1st operation — explain first fixing-metal A concerning the gestalt of the 1st operation shown by drawing 1 - view 6 Fixing-metal A concerning the gestalt of this 1st operation If it is in a series of example of this of illustration, Itabe 11a decorated with the upper part of the sheathing material 20 attached to the lower berth, and Itabe 11b decorated with the soffit of the sheathing material 20 attached to an upper case From the vertical edge of bearing Itabe 11 who constituted as plate-like Itabe of one sheet, and this bearing Itabe 11, while it is installed in a series to this bearing Itabe 11 The tripod plate section 17 with which the mode which was able to extend to the sense which leaves a nose of cam side one by one, namely, makes the base type status to ** was equipped, With level hold Itabe 12 who is in aforementioned bearing Itabe's 11 lateral surface, projects at an abbreviation right angle and is constituted from this lateral surface at this bearing Itabe 11 and one It has considered as the configuration equipped with 1st engagement Itabe 13 who turns caudad and protrudes from this hold Itabe 12, and 2nd engagement Itabe 14 who is ahead located from this 1st engagement Itabe 13, and protrudes towards the upper part from aforementioned hold Itabe 12.

[0055] Piece of foot 17a which projects the tripod plate section 17 constituted here from aforementioned bearing Itabe's 11 upper limit to the slanting upper part, Piece of foot 17a projected in a slanting lower part from a soffit, and each of this piece of foot 17a, The pieces 17b and 17b of a decoration installed in ** by the incurvation status towards the side which leaves a nose of cam side constitute from 17a, and these pieces 17b and 17b of a decoration consider as the configuration which becomes parallel to aforementioned bearing Itabe 11. by this It has considered as the configuration to which bearing Itabe 11 of fixing-metal A is attached in

parallel to anchoring section B.

[0056] The ejection width of face of piece of foot 17a in such tripod plate section 17 between the sheathing material 20 with which this fixing-metal A is equipped, and anchoring section B If it is in this sheathing material 20, and anchoring section B and this example of illustration in case of anchoring of the sheathing material 20 using fixing-metal A as a dimension required to constitute space H which does not produce stay of air Free passage space H which can fully prevent the stay of air considered as causes, such as occurrence of dew condensation, between tarpaulins 34 is constituted. The aforementioned tripod plate section 17 constitutes the concerned tripod plate section 17 from such a point so that the spacing of abbreviation 12mm-25mm may be produced from bearing Itabe 11 between anchoring section B.

[0057] Moreover, anchoring section B, such as a cylinder and the stud 30, is received in this fixing-metal A. The hole 18 is prepared in the piece of decoration 17b fraction located up rather than bearing Itabe 11 at least. the insertion for attaching firmly with the firm attachment meanses 35, such as a nail and a screw, — This fixing-metal A can be attached firmly certainly and easily to anchoring section B, without being barred by bearing Itabe 11 used for anchoring of a sheathing material 20.

[0058] Subsequently, hold Itabe 12 projected by the sense of an abbreviation horizontal has in ** 1st engagement Itabe 13 who projects in the vertical orientation to the nose of cam side, and 2nd engagement Itabe 14 in the status not in class from bearing Itabe 11. That is, it has facing down and 1st engagement Itabe 13 who projects ahead from this hold Itabe's 12 inferior surface of tongue, and it is ahead of this hold Itabe 12 rather than this 1st engagement Itabe 13, and has considered as the configuration equipped with 2nd engagement Itabe 14 who projects facing up and ahead from this hold Itabe's 12 nose of cam top.

[0059] If hold Itabe 12 who consists of such a configuration has, it has considered as the configuration which equipped with this 1st engagement Itabe 13 and 2nd engagement Itabe 14 so that the spacing which constitutes opening x between this 1st engagement Itabe 13 and each protrusion base of 2nd engagement Itabe 14 may arise.

[0060] 1st engagement Itabe 13 with whom such hold Itabe's 12 inferior-surface-of-tongue nose of cam side is equipped is formed between this 1st engagement Itabe 13 and aforementioned bearing Itabe 11 at the mode in which the upper limit of the sheathing material 20 in a lower-berth side and ***** 15 of inferior-surface-of-tongue opening in which the standup protruding edge 21 is settled especially densely extended the opening side gradually. Moreover, between this 2nd engagement Itabe 14 and aforementioned bearing Itabe 11, 2nd engagement Itabe 14 whom it has at hold Itabe's 12 nose of cam is formed so that ***** 16 of the soffit of the sheathing material 20 in an upper case side and top opening which contains soffit side 23a of ***** 23 especially and in which it inserts each other in and the section 26 is settled densely may extend the opening side gradually.

[0061] Bearing Itabe 11 who is in such fixing-metal A and supports the upper-limit fraction and soffit fraction of a sheathing material 20 to each Even if it is in any of Itabe 11a in the Itabe 11b [in the upper part side which hold Itabe 12 *****], and lower part side of this, it constitutes as a thing equipped with the size which doubles the non-real part which follows this real part, and can carry out decoration bearing of it with each real part in this sheathing material 20.

[0062] Namely, if it is in Itabe 11a, while the upper-limit fraction of the sheathing material 20 with which this Itabe 11a is decorated is constituted as a thing equipped with the standup protruding edge 21 and the breadth which follows this and which can be supported with a part for this soma of a sheathing material 20 the sheathing material 20 with which this Itabe 11a was decorated can be directly attached firmly to anchoring section B, such as a cylinder and the stud 30, by the firm attachment meanses 36, such as a nail and a screw, in the standup protruding edge 21 fraction — as — this Itabe 11a — insertion — the hole 19 is formed

[0063] Moreover, are in anchoring of the sheathing material 20 by such firm attachment means 36, and easily and certainly, this sheathing material 20 so that it can attach firmly to anchoring section B, such as a cylinder and the stud 30 each insertion established by the aforementioned Itabe 11a on the top of 1st engagement Itabe 13 in whom this sheathing material 20 is inserted — mark y which the hole 19—19 was alike, respectively, and corresponded — this insertion — it

has prepared so that it may be located in right above [of a hole 19—19]

[0064] Furthermore, even if it is in [tabe 11b positioned in the upper part of hold Itabe 12 in aforementioned bearing Itabe 11, a part for this soma of the sheathing material 20 in a sheathing material 20 which inserts each other in and is following a heights 26 and this is considered as the configuration equipped with this breadth that inserts each other in and is supported with a heights 26.

[0065] While this standup protruding edge 21 attaches this fixing-metal A to the standup protruding edge 21 in the sheathing material 20 attached to a lower-berth side so that it may fit in ***** 15 in fixing-metal A if it is in fixing-metal A constituted in this way, piece of decoration 17b in the tripod plate section 17 in fixing-metal A is attached firmly to anchoring section B by the firm attachment means 35. The sheathing material 20 attached to such anchoring section B is between this fixing-metal A, and the upper limit, especially standup protruding edge 21 fraction are directly attached firmly to it by the firm attachment means 36 to anchoring section B in response to sizing of a position.

[0066] Thus, after attaching a sheathing material 20 to fixing-metal A, while dedicating the soffit fraction of the sheathing material 20 attached to a upper-limit side, and in ***** [in / it inserts each other in especially and / this fixing-metal A for a heights 26] 16, the sheathing material 20 by the side of the upper part is attached so that the suspension protruding edge 24 may separate opening x and the front of the standup protruding edge 21 in the sheathing material 20 attached to the aforementioned lower part side may be covered.

[0067] If it is in wall W constituted using fixing-metal A in this way, while a sheathing material 20 is attached firmly to the mode of box joint tension of **** or **** to a cylinder and the stud 30 and constitutes convenient opening x in a rain informal Noh dance between each of this watch sheathing material 20 and 20, it considers as the configuration equipped with space H which prevents stay of air among anchoring section B, such as a cylinder and the stud 30.

[0068] Such a sheathing material 20 and opening x constituted among 20 ***** 22 in the sheathing material 20 attached to the lower-berth side, and ***** 23 in the sheathing material 20 attached to the upper part, It is what is constituted as a clearance with the suspension protruding edge 24 in the sheathing material 20 attached to the upper part side to make. more in a detail By making small the ejection dimension of the suspension protruding edge 24 to the standup protruding edge 21 Level slot-like opening x' constituted between ***** 22 and the soffit side of the suspension protruding edge 24, between the standup protruding edge 21 inserted in ***** 15, and the suspension protruding edges 24 which were mutually inserted in ***** 16 and which insert each other in and are installed from the front of a heights 26 — the [the above 1st and] — perpendicular slot-like opening x'' brought as 2 engagement Itabe's 14 protrusion level difference is constituted

[0069] Opening x' constituted in this way and the upper case [as opposed to / the standup protruding edge 21 of the lower-berth side sheathing material 20 to ***** 15 inserts in x'', and / the price and ***** 16] side sheathing material 20 insert each other in, a heights 26 inserts in, and it can perform hold Itabe 12 in fixing-metal A of this sheathing material 20, 1st engagement Itabe 13, and reaching and constituting distinctly by 2nd engagement Itabe 14 in connection with the price. In addition, 37 in drawing shows this opening x and the sealing material which prevents the entrainment of storm sewage to opening x'' which is perpendicularly especially.

[0070] (2) Fixing-metal view 7 concerning gestalt of the 2nd operation — view 10 shows fixing-metal A concerning the gestalt of the 2nd operation. If it is in fixing-metal A concerning the gestalt of this 2nd operation the tripod plate section 17 in fixing-metal A concerning the gestalt of implementation of the above 1st — especially Piece of foot 17a is set to piece of foot 17a of the mode to which the nose of cam side narrows in the sense which approaches ** gradually. Therefore, it has considered as the same configuration identically to fixing-metal A concerning the gestalt of implementation of the configuration except having narrowed, having balanced width of face and having constituted piece of decoration 17b to extensive scale division in piece of foot 17a shut to the sense approaching this ** of the above 1st, or substantially. Moreover, technique to which the sheathing material 20 by this fixing-metal A should cling is also made the

same identically to the technique to which the sheathing material 20 concerning the gestalt of implementation of the above 1st should cling, or substantially.

[0071] Therefore, it is in fixing-metal A concerning the gestalt of this 2nd operation, and identically to fixing-metal A of the sheathing material 20 concerning the gestalt of implementation of the above 1st, or substantially, about the same component, the same number is attached and the explanation is omitted.

[0072] If it is in fixing-metal A of the sheathing material concerning the gestalt of this 2nd operation, piece of decoration 17b in which the nose of cam side was installed by the incurvation status towards the side opposite to **, respectively from the side edge of piece of foot 17a of the couple gradually installed by the incurvation status so that ** might be approached, and piece of foot 17a of this couple constitutes the tripod plate section 17 from bearing Itabe's 11 vertical edge.

[0073] If it is in fixing-metal A equipped with such tripod plate section 17, in the metallic-ornaments configuration of a compact configuration, it is supposed that it is possible to constitute the anchoring side over anchoring section B to extensive scale division.

[0074] (3) Fixing-metal view 11 concerning gestalt of the 3rd operation - view 14 shows fixing-metal A concerning the gestalt of the 3rd operation. Fixing-metal A concerning the gestalt of this 3rd operation It turns to a side opposite to bearing Itabe's 11 tooth-back, i.e., hold Itabe's 12 ejection, side. While piece of foot 17a' of the sense which intersects perpendicularly to this bearing Itabe 11 is prepared, it is the sense which intersects perpendicularly with this piece of foot 17a', namely, piece of decoration 17b parallel to aforementioned bearing Itabe 11 is prepared in the nose of cam side of this piece of foot 17a' this piece of decoration 17b' — aforementioned bearing Itabe's 11 insertion — the configuration except having established the hole 38 in which it is inserted in from a hole 19 and the firm attachment meanses 36, such as a nail and a screw, are inserted is considered as the same configuration identically to fixing-metal A concerning the gestalt of implementation of the above 1st, or substantially moreover, anchoring of the sheathing material 20 by the firm attachment means 36 — it is — this firm attachment means 36 — the insertion from a sheathing material 20 — suppose that it is the same identically to the technique to which the sheathing material 20 concerning the gestalt of implementation of attachment except attaching through a hole 18 and the hole 38 and having been made to attach firmly to the cylinder of section B and the stud 30 of the above 1st should cling, or substantially

[0075] Therefore, it is in fixing-metal A of the sheathing material 20 concerning the gestalt of this 3rd operation, and identically to fixing-metal A of the sheathing material concerning the gestalt of implementation of the above 1st, or substantially, about the same component, the same number is attached and the explanation is omitted.

[0076] If it is in fixing-metal A concerning the gestalt of this 3rd operation So that piece of decoration 17b' which constitutes the tripod plate section 17 may be constituted from bearing Itabe 11 to extensive scale division and this piece of decoration 17b' and bearing Itabe 11 may moreover become abbreviation parallel being level — and — one — a sheet — a foot — a piece — 17 — a — ' — one — like — successive formation — a configuration — carrying out — **** — things — **** — constituting — having — fixing metal — A — bulky — receiving — a decoration — a piece — 17 — b — ' — a decoration — a field — extensive — scale division — constituting — things — being possible — ** — carrying out — having .

[0077] (4) Fixing-metal view 15 concerning gestalt of the 4th operation - view 18 shows the fixing metal of the sheathing material concerning the gestalt of the 4th operation. Fixing-metal A of the sheathing material concerning the gestalt of this 4th operation is considered as the same configuration identically to fixing-metal A of the sheathing material concerning the gestalt of implementation of the configuration except having protruded on the sense which intersects perpendicularly 1st engagement Itabe 13 with whom hold Itabe 12 is equipped, and 2nd engagement Itabe 14 to this hold Itabe 12, respectively of the above 1st, or substantially. Moreover, the anchoring means of the sheathing material 20 using this fixing-metal A is made the same identically to fixing-metal A concerning the gestalt of implementation of the above 1st, or substantially.

[0078] Therefore, it is in the fixing metal of the sheathing material 20 concerning the gestalt of

this 4th operation, and identically to fixing-metal A concerning the gestalt of implementation of the above 1st, or substantially, about the same component, the same number is attached and the explanation is omitted.

[0079] If it is in fixing-metal A concerning the gestalt of this 4th operation 1st engagement Itabe 13 who is in hold Itabe's 12 inferior-surface-of-tongue side, and protrudes from the middle It carries out to the status which intersected perpendicularly with this hold Itabe 12, i.e., the configuration installed right-angled from this hold Itabe 12. 2nd engagement Itabe 14 who stands up from this hold Itabe's 12 nose of cam to the upper part is constituted as a standup protruding piece crooked right-angled from this hold Itabe 12. moreover, by this It constitutes as a thing equipped with the standup protruding edge 21 and the parallel groove face which both counters ***** 15 and 16 which inserts each other in and is settled in each of a heights 26.

[0080] Thus, if it is in constituted fixing-metal A, it inserts each other in, and while a heights 26 can be constituted in the standup protruding edge 21 in the sheathing material 20 attached by this, and the square shape in which each inside angle makes 90 degrees, it inserts in each other's soffit fractions other than the fraction which constitutes the suspension protruding edge 24 in the sheathing material 20 with which the upper part is equipped, and they can be constituted as a heights 26. moreover — this — fixing metal — A — it can set — the — one — engagement — Itabe — 13 — the — two — engagement — Itabe — 14 — a protrusion — a position — a sheathing material — 20 — mutual — each — anchoring — a lap — a field — between — constituting — having — an opening — x — especially — a perpendicular direction — an opening — x — ” — a configuration — a means — ***** — a sense of purpose — having — it can set up .

[0081]

[Effect of the Invention] With the configuration on ** of fixing-metal A of the sheathing material concerning this invention with features, and bearing Itabe 11 especially attached and used for the parallel status to anchoring section B, such as a cylinder and a stud With hold Itabe 12 who protrudes from this bearing Itabe 11 towards a side opposite to a bearing Itabe's 11 to this anchoring section B anchoring side It has 2 engagement Itabe. the [of the couple which is in this hold Itabe's 12 nose of cam side, and turns to an opposite side mutually, and protrudes on the not-in-class status / the 1st and] — And between 1st engagement Itabe 13 and aforementioned bearing Itabe 11 in the side near aforementioned bearing Itabe 11 It considers as ***** 15 in which a part of upper-limit section [at least] of the sheathing material 20 attached to the lower part side is stored. And between 2nd engagement Itabe 14 and aforementioned bearing Itabe 11 in a side far from aforementioned bearing Itabe 11 As opposed to ***** 15 in which the upper-limit fraction of the sheathing material 20 attached to a lower part side is stored since it constitutes as ***** 16 to which a part of soffit section [at least] of the sheathing material 20 attached to an upper part side is dedicated ***** 16 in which the soffit fraction of the sheathing material 20 attached to an upper part side is stored is constituted broadly, and, as a result, the sheathing material 20 has the feature which can be certainly attached firmly to anchoring section B, such as a cylinder, by fixing-metal A equipped with the large receptacle side.

[0082] 2nd engagement Itabe 14 with whom hold Itabe 12 is equipped is formed in the position distant from bearing Itabe 11 the nose of cam side rather than 1st engagement Itabe 13 with whom this hold Itabe 12 is equipped in the not-in-class status. as a result, with moreover, 1st engagement Itabe 13 It has the feature between 2nd engagement Itabe 14 which can constitute opening x for rain informal Noh dances as configuration space between 1st engagement Itabe 13 to this fixing-metal A, and 2nd engagement Itabe 14.

[0083] Furthermore, bearing Itabe 11 who constitutes the decoration side of a sheathing material 20 is formed in the parallel status to anchoring section B, space H which followed a series between this sheathing material 20 and anchoring section B of this sheathing material 20 is constituted, and it has the feature which can be considered as the configuration which the stay space of air does not produce inside [attachment] a sheathing material 20.

[0084] Moreover, by using fixing-metal A, without using furring-strip material especially, to structure material, such as a cylinder and a stud, anchoring is made directly possible and it has

wall substratum material and the feature which can constitute necessary space H inside
[anchoring] this sheathing material 20 for the sheathing material 20.

[Translation done.]

*** NOTICES ***

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] Important section drawing of longitudinal section showing the status that the sheathing material was attached using the fixing metal concerning the gestalt of the 1st operation

[Drawing 2] This important section plane-cross-section view

[Drawing 3] The important section perspective diagram separating and showing the important section configuration member of the wall for the said anchoring

[Drawing 4] The perspective diagram of this fixing metal

[Drawing 5] This side elevation

[Drawing 6] This front view

[Drawing 7] Important section drawing of longitudinal section showing the status that the sheathing material was attached using the fixing metal concerning the gestalt of the 2nd operation

[Drawing 8] The perspective diagram of this fixing metal

[Drawing 9] This side elevation

[Drawing 10] This front view

[Drawing 11] Important section drawing of longitudinal section showing the status that the sheathing material was attached using the fixing metal concerning the gestalt of the 3rd operation

[Drawing 12] The perspective diagram of this fixing metal

[Drawing 13] This side elevation

[Drawing 14] This front view

[Drawing 15] Important section drawing of longitudinal section showing the status that the sheathing material was attached using the fixing metal concerning the gestalt of the 4th operation

[Drawing 16] The perspective diagram of this fixing metal

[Drawing 17] This side elevation

[Drawing 18] This front view

[Drawing 19] Drawing of longitudinal section showing the anchoring status of the conventional sheathing material

[Drawing 20] This important section expanded sectional view

[Description of Notations]

11 Bearing Itabe

12 Hold Itabe

13 1st Engagement Itabe

14 2nd Engagement Itabe

15 *****

16 *****

17 Tripod Plate Section

17a The piece of a foot

17a' Piece of a foot

17b The piece of a decoration

17b' Piec of a decoration

18 insertion — a hole

19 insertion — a hole

20 Sheathing Material

A Fixing metal

B Anchoring section

H Space

x Opening

y Mark

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

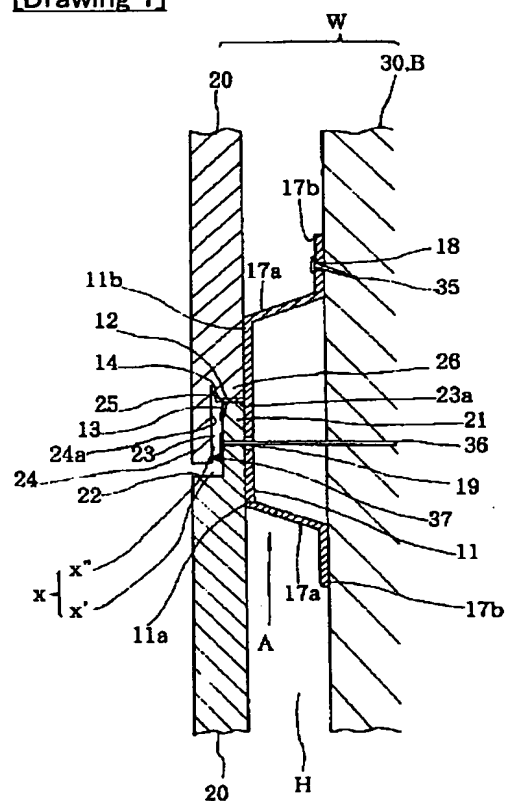
1. This document has been translated by computer. So the translation may not reflect the original precisely.

2. **** shows the word which can not be translated.

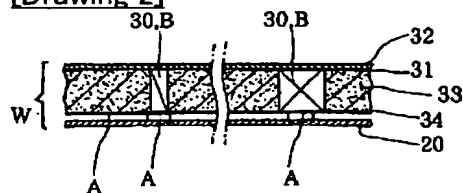
3. In the drawings, any words are not translated.

DRAWINGS

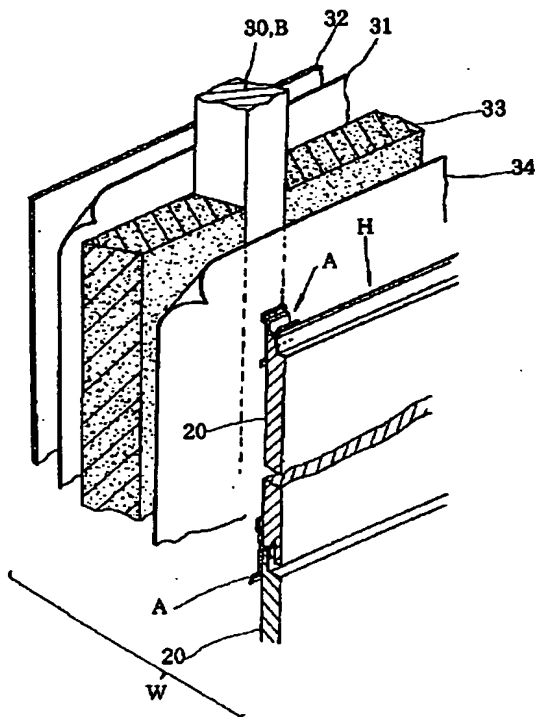
[Drawing 1]



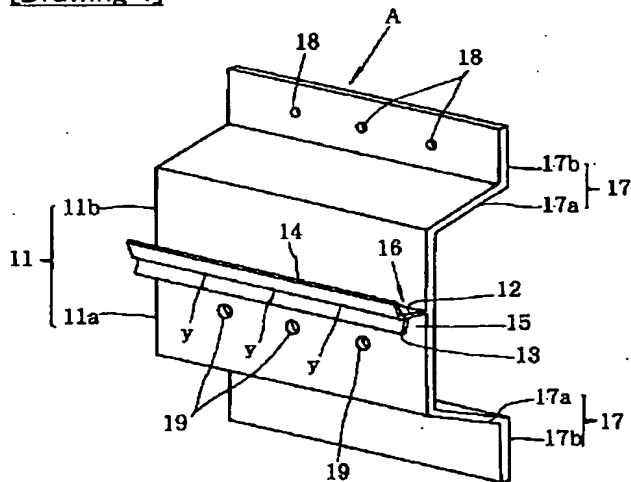
[Drawing 2]



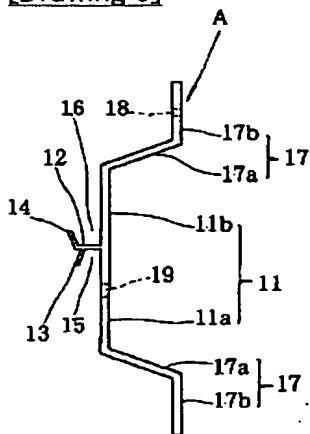
[Drawing 3]



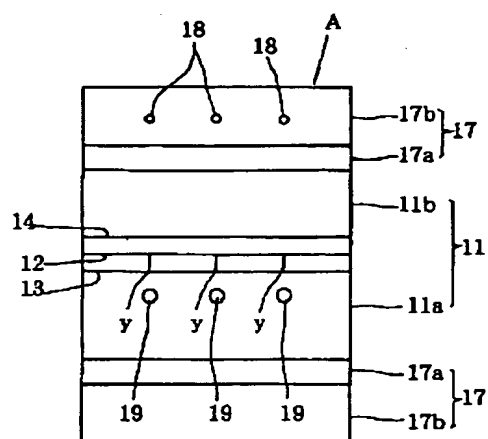
[Drawing 4]



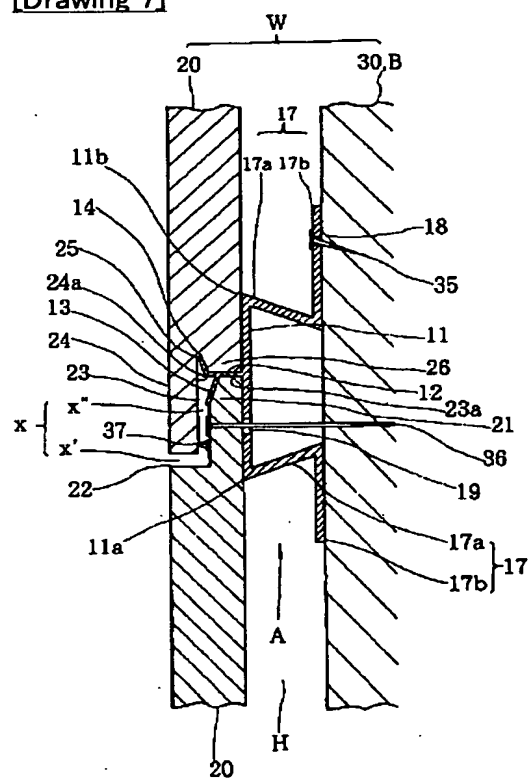
[Drawing 5]



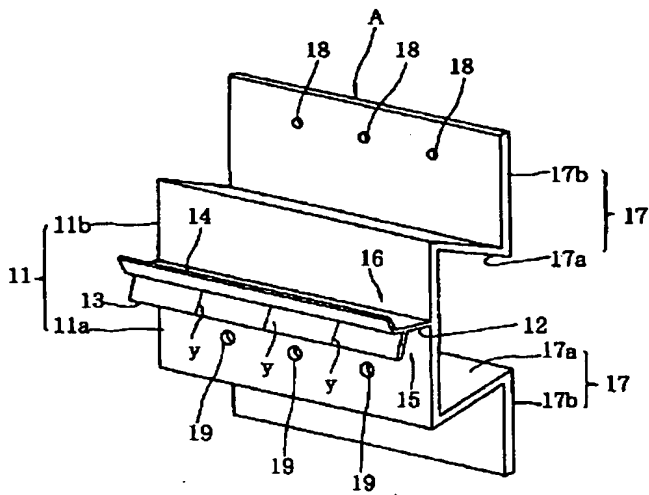
[Drawing 6]



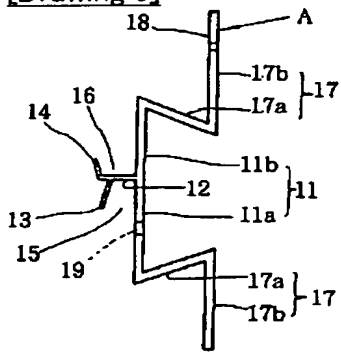
[Drawing 7]



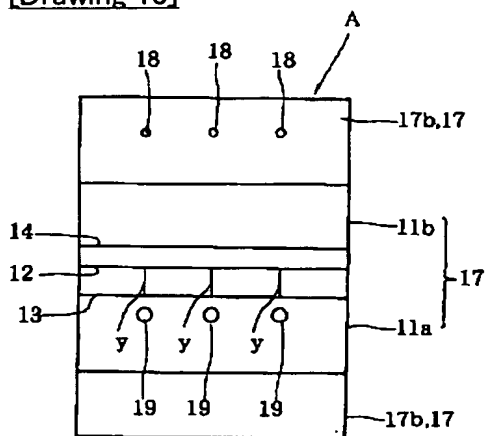
[Drawing 8]



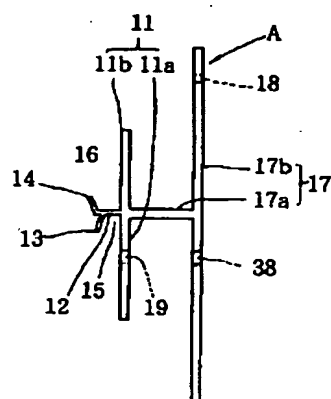
[Drawing 9]



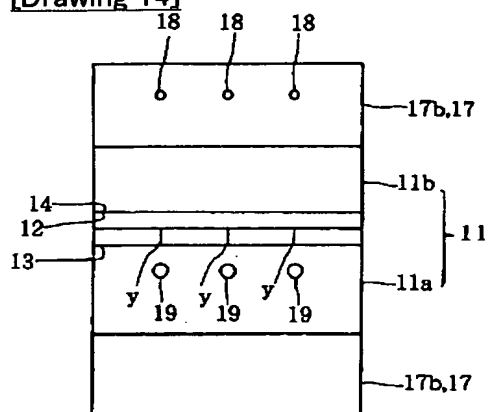
[Drawing 10]



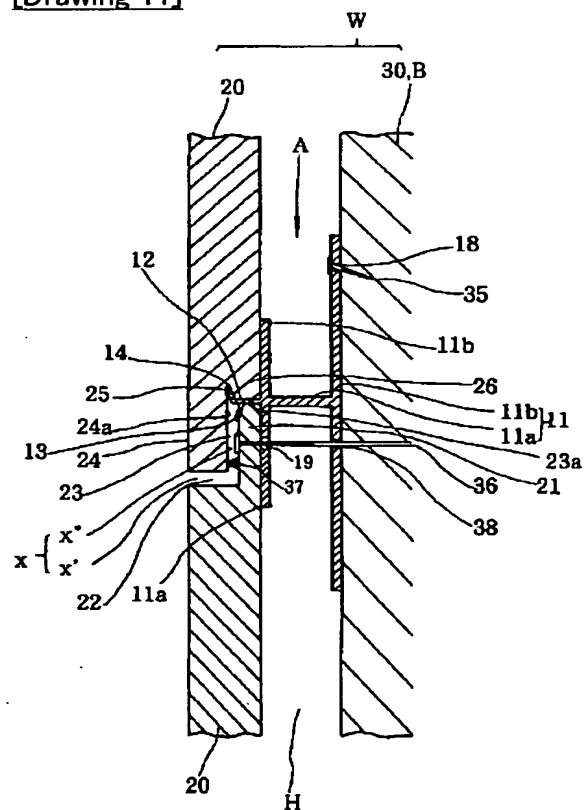
[Drawing 13]



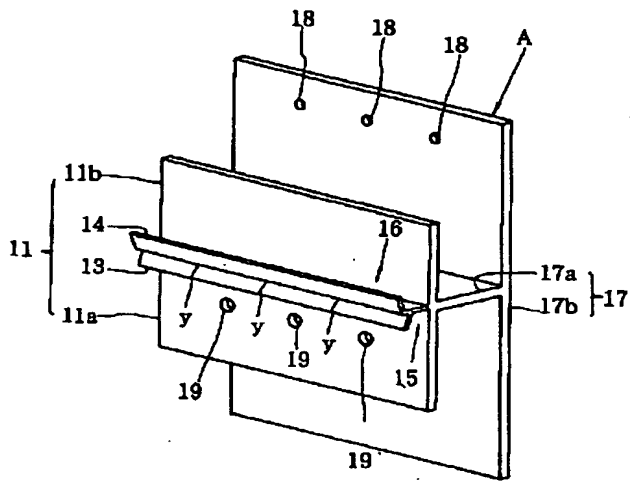
[Drawing 14]



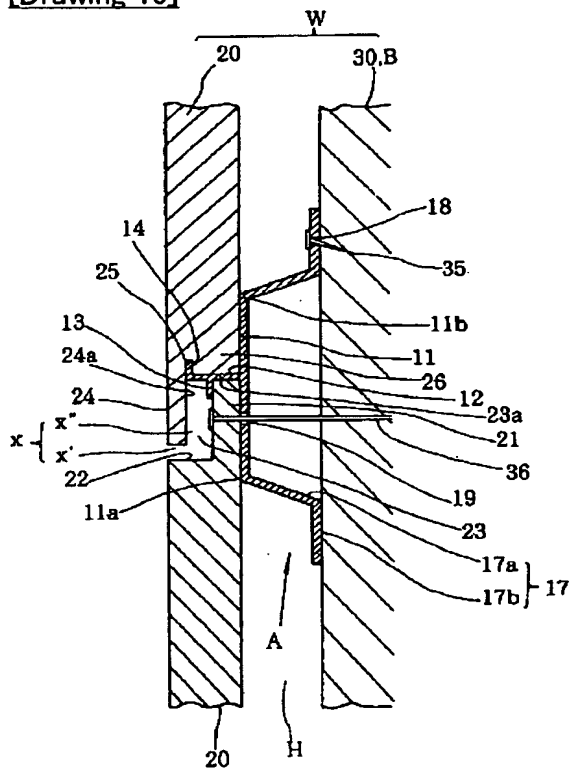
[Drawing 11]



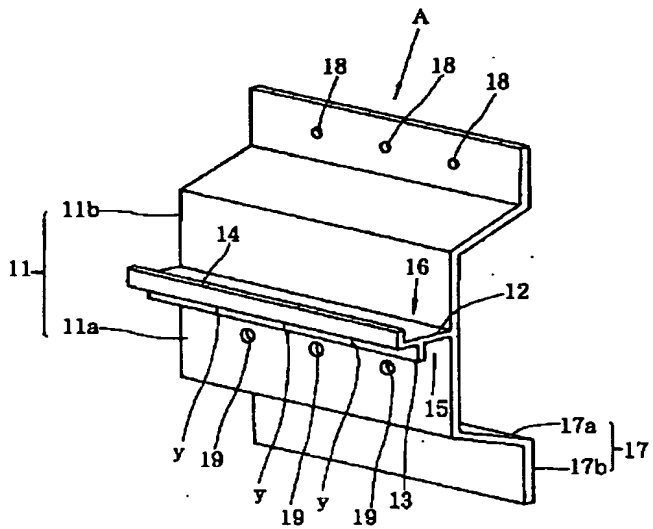
[Drawing 12]



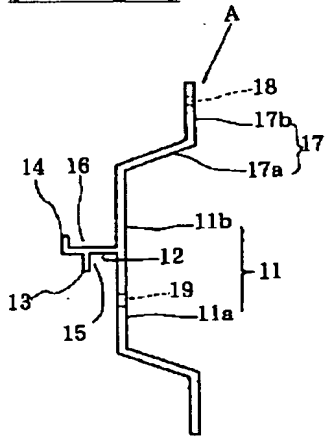
[Drawing 15]



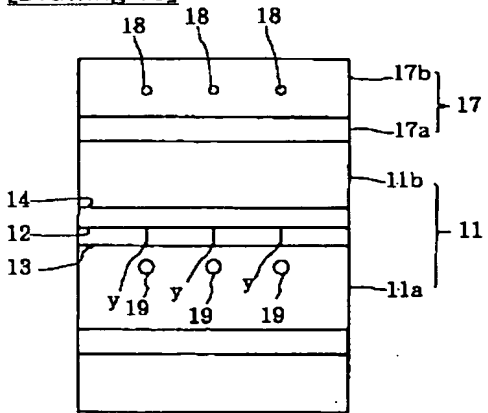
[Drawing 16]



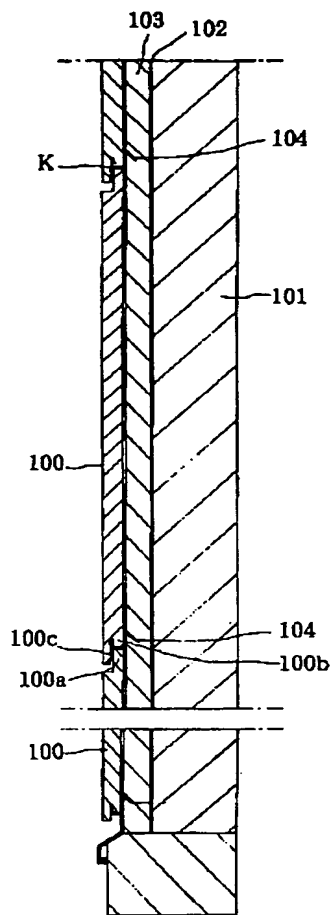
[Drawing 17]



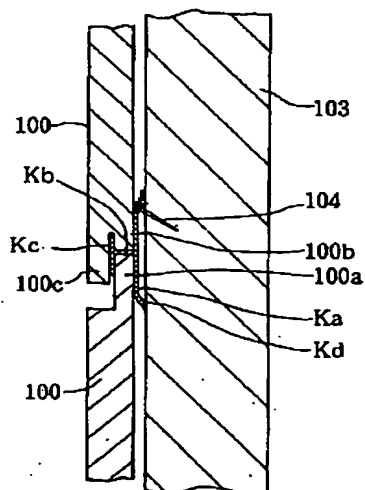
[Drawing 18]



[Drawing 19]



[Drawing 20]



[Translation done.]

Copyright (C); 2000 Japan Patent Office

(19) 日本国特許庁 (J P)

(12) 公開特許公報 (A)

(11) 特許出願公開番号

特開平9-170319

(43) 公開日 平成9年(1997)6月30日

(51) Int.Cl. ⁶	識別記号	序内整理番号	F I	技術表示箇所
E 0 4 F 13/08	1 0 1	8913-2E	E 0 4 F 13/08	1 0 1 D

審査請求 未請求 請求項の数 8 F D (全 13 頁)

(21) 出願番号 特願平7-349298

(22) 出願日 平成7年(1995)12月20日

(71) 出願人 000183428

住友林業株式会社

大阪府大阪市中央区北浜4丁目7番28号

(72) 発明者 鉄羅 義徳

大阪府大阪市中央区北浜四丁目7番28号住

友林業株式会社内

(72) 発明者 浅野 文彦

大阪府大阪市中央区北浜四丁目7番28号住

友林業株式会社内

(72) 発明者 木曾 正光

大阪府大阪市中央区北浜四丁目7番28号住

友林業株式会社内

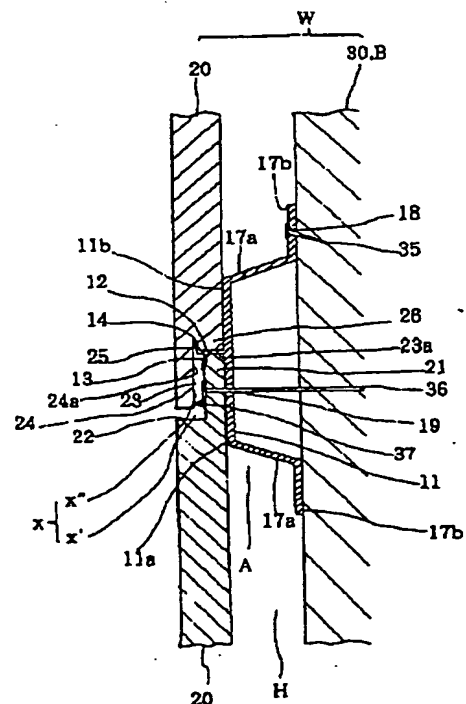
(74) 代理人 弁理士 桑原 稔 (外1名)

(54) 【発明の名称】 外装材の取付け金具

(57) 【要約】

【課題】 外装材を柱などの構造材に対して直接止着し、且つ相互の組付け部分に、雨仕舞い用の隙間を構成し、且つ取付け内側面に一連に連通された隙間を構成できる外装材の取付け金具の提供。

【解決手段】 柱、間柱などの取付け部に対して平行な状態に取付け用いられる支承板部と、この支承板部から、この取付け部に対する支承板部の取付け側と反対の側にむけて突設される保持板部と、この保持板部の先端側にあって、互いに反対の側を向き、且つ段違い状態に突設される一対の第1及び第2係合板部とを備え、前記支承板部に近い側にある第1係合板部と前記支承板部との間が、下部側に組み付けられている外装材の上端部の少なくとも一部の収め入れられる溝状嵌め合い部とされ、且つ、前記支承板部から遠い側にある第2係合板部と前記支承板部との間が、上部側に組み付けられる外装材の下端部の少なくとも一部の納め入れられる溝状嵌め合い部として構成した取付け金具。



【特許請求の範囲】

【請求項1】 柱、間柱などの取付け部に対して平行な状態に取付け用いられる支承板部と、この支承板部から、この取付け部に対する支承板部の取付け側と反対の側にむけて突設される保持板部と、この保持板部の先端側において、互いに反対の側を向き、且つ段違い状態に突設される一对の第1及び第2係合板部とを備え、前記支承板部に近い側にある第1係合板部と前記支承板部との間が、下部側に組み付けられている外装材の上端部の少なくとも一部の収め入れられる溝状嵌め合い部とされ、且つ、前記支承板部から遠い側にある第2係合板部と前記支承板部との間が、上部側に組み付けられる外装材の下端部の少なくとも一部の納め入れられる溝状嵌め合い部とされていることを特徴とする外装材の取付け金具。

【請求項2】 保持板部に備えられる係合板部が、支承板部に対向するように該保持板部に対して、直交する向き、又は、該保持板部から前方に向けて傾斜する向きに備えられており、この支承板部と第1係合板部との間が、下部側に組み付けられている外装材の上端部の少なくとも一部の納め入れられる凹溝状嵌め合い部又は拡開溝状嵌め合い部とされ、前記支承板部と第2係合板部との間が、上部側に組み付けられる外装材の下端部の少なくとも一部の納め入れられる凹溝状嵌め合い部又は拡開溝状嵌め合い部とされていることを特徴とする請求項1記載に係る外装材の取付け金具。

【請求項3】 支承板部が、脚板部を備え、且つ、この脚板部によって、取付け部に対して平行、且つ略12mm～25mmの間隔を開けて取付けられることを特徴とする請求項1記載に係る外装材の取付け金具。

【請求項4】 支承板部に備えられる脚板部を、該支承板部の両側部から、屈曲又は湾曲される脚片と、該脚片の先端側から前記支承板部に平行となるように屈曲状態に延設される添装片とによって構成してあることを特徴とする請求項3記載に係る外装材の取付け金具。

【請求項5】 支承板部に備えられる脚板部を、該支承板部の板面から突設される脚片と、該脚片の先端側から該支承板部に平行に延設される添装片とによって構成してあることを特徴とする請求項3記載に係る外装材の取付け金具。

【請求項6】 取付け部に添装される脚板部における添装片であって、該脚板部における脚片から上方に延設されて、支承板部よりも上方に位置されている添装片部分に、釘、ビスなどの挿通孔が設けてあることを特徴とする請求項4又は請求項5記載に係る外装材の取付け金具。

【請求項7】 下部側に組み付けられる外装材の上端部の添装される支承板部に、釘、ビスなどの挿通孔が設けてあると共に、この外装材の上端部側の少なくとも一部を納め入れる溝状嵌め合い部を前記支承板部と共に構成

する第1係合板部に、該挿通孔の開設位置を示す印を付すようにしたことを特徴とする請求項1記載に係る外装材の取付け金具。

【請求項8】 下部側に組み付けられる外装材の上端部の添装される支承板部が、該外装材の上端部を構成する雄実部と、この雄実部に連続する該外装材の上部部分を受ける構成としてあることを特徴とする請求項1記載に係る外装材の取付け金具。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】 この発明は、壁などの構成に際して、窯業系外装材などの外装材を柱、間柱などに対して、縦胴縁材を用いることなしに直接取付けるようにした取付け金具の提供に関する。

【0002】

【従来の技術】 木造家屋などにおける外装材の典型的な取付け手段として、柱、間柱などに対して、壁下地材としての縦胴縁を備え付け、この縦胴縁に対して、セメント系、セラミック系などの外装材を、各種の受け金具を用いて組付け構成していた。

【0003】 かかる受け金具Kによる外装材100の取付けは、典型的には、図19及び図20で示されるように、柱、間柱101の外側に、防水シート102を介して、縦胴縁103を備え付け、この縦胴縁103に対して、前記受け金具Kを用いて、その下段に位置する外装材100から、順次、上方に位置する外装材100を組付けて、目的とする壁面の構成をなすようにしていた。

【0004】 かかる外装材100の取付けに用いられる受け金具Kは、縦胴縁103の面にほぼ接し、且つ、この縦胴縁103に対して、その取付け脚片部Kd位置で、釘、ビスなどの止着手段104によって止着される板部Kaと、この板部Kaの面に対して略直交する向きに突設されると共に、先端に、この板部Kaに平行な板部Kcを備えた水平の板部Kbとによって構成してあり、この板部Kbの下面側において、板部Kaと、板部Kcとによって囲まれた下面開口の溝状凹部に、下段に組付けられる外装材100の上部側にある雄実部100aを、また、板部Kbの上面側において、板部Kaと、板部Kcとによって囲まれた上面開口の溝状凹部に、上段に組付けられる外装材100の下部側にある雌実部100bを、夫々納め入れるようにして組付け用いていた。

【0005】 かかる受け金具Kによって取付けられる外装材100は、上端縁に沿った縦胴縁103に対する添装側に、段差状に起立した雄実部100aを備え、下端縁に沿った縦胴縁103に対する添装側に、この雄実部の収まり入る雌実部100bを備えた構成としてある。従って、下部側にある外装材100の上端雄実部100aに対し、この雄実部100aを、受け金具Kにおける雄実受け凹部内に収め入れるようにして、受け金具Kを

添装し、この外装材100と、受け金具Kにおける板部Kaを縦胴縁103に対して密着した状態で、止着手段104によって、この外装材100を備えた受け金具Kを、縦胴縁103に組付ける構成としていた。

【0006】次いで、この組付け外装材100の上部側に装着される外装材100の、下端部分にある雌実部100bを、前記の縦胴縁103に止着された受け金具Kにおける雌実受け凹部内に収め入れると共に、その上端にある雄実部分100aに前記と同様に、受け金具Kを装着して、順次、この外装材100を、下段側から、上段側に向けて組付け構成していた。

【0007】

【発明が解決しようとする課題】しかしながら、かかる外装材100の張り込みに用いられる各受け金具Kにあっては、外装材100の雄実部100aを受け入れる下面開口の溝状凹部と、外装材100の雌実部100bを受け入れる上面開口の溝状凹部がいずれも、板部Ka、及び該板部Kaに対して板部Kbで連設されて、該板部Kaに対して平行とされた板部Kcとによって構成してあることから、この受け金具Kによって、縦胴縁103に備えつけられる外装材100における雄実部100aと、雌実部100bとが同一の板厚寸法のものとして構成される。

【0008】この結果、縦胴縁103に取付けられる外装材100は、その上端が、受け金具Kにおける下面開口の溝状凹部に収め入れられると共に、この受け金具Kで組付けられた雄実部100aの前方を、上段に装着される外装材100における下端突縁100cによって、更に押えつけられる構成とされるのに対し、下端側にあっては、単に、その雌実部100bが、前記雄実部100aを受け入れる溝状凹部の溝幅と同一の溝幅を備えた凹部のみによって支障されており、この受け金具Kの溝状凹部の底面によって、この上部側にある外装材100の全重量が支承され、しかも、この溝状凹部内に収め入れられた雌実部100bの該溝状凹部に対する係合力のみによって、この外装材100の下端側が縦胴縁103に組付けられる構成としてある。

【0009】また、かかる手法にあっては、順次に組付けられる外装材100における雄実部100aと、雌実部100bの当接部分、特に、雌実部100bの前方にある下端突縁100cと雄実部100aとの間に隙間がなく、雨仕舞いに不具合を生ずることがあった。

【0010】また、この外装材100の下端において、雌実部100bと、突縁100cとの間に、雨仕舞いに用いる隙間を構成する場合、この構成される隙間の間隔に相当する寸法分、前記雌実部100bの構成板厚、又は、前記突縁100cの構成板厚を、薄くする必要があった。

【0011】また、かかる受け金具Kは、止着手段104を縦胴縁103に対して斜下方に打ちつける都合か

ら、受け金具Kに取付け脚片部Kcを設け、この取付け脚片部Kcを、縦胴縁103の面に添装して、釘などの止着手段104によって止着用いる構成としてある。

【0012】かかる受け金具Kにあっては、この受け金具Kの釘などの止着手段104による止着施工が難しく、しかも、外装材100が縦胴縁103に対して、釘、ビスなどによって直接止着されない構成としてある。

【0013】また、かかる手法にあっては、各縦胴縁103で囲まれた空間は、防水シート102、外装材100によって、夫々に独立した空間とされることから、当該空間内において、この空間内のエアに滞留を生ずるなどの不具合があった。

【0014】更に、かかる手法にあっては、受け金具Kの板部Kaにおける雄実部100aを受け入れる面が、通例、この雄実部100aの突き出し幅よりも幅狭に構成されており、受け金具Kに組付けられる外装材100における雄実部100aが、この板部Kaによって支承されない部分において予期せずに折れるなどの不具合があった。

【0015】本発明に係る外装材の取付け金具は、柱、間柱などの構造材に対して、壁などを構成する外装材を直接、且つ、確実に止着すると共に、外装材相互の組付け部分に、この取付け金具によって雨仕舞い用の隙間を構成し、しかも、外装材の取付け内側面に、胴縁材などによって区分されることのない一連に連通された隙間を構成する取付け金具の提供を目的としている。

【0016】

【課題を解決するための手段】本発明は、前記の各目的を達成するために、請求項1の発明に係る外装材の取付け金具Aを、柱、間柱などの取付け部Bに対して平行な状態に取付け用いられる支承板部11と、この支承板部11から、この取付け部Bに対する支承板部11の取付け側と反対の側にむけて突設される保持板部12と、この保持板部12の先端側にあって、互いに反対の側を向き、且つ段違い状態に突設される一対の第1及び第2係合板部とを備え、前記支承板部11に近い側にある第1係合板部13と前記支承板部11との間が、下部側に組み付けられている外装材20の上端部の少なくとも一部を収め入れられる溝状嵌め合い部15とされ、且つ、前記支承板部11から遠い側にある第2係合板部14と前記支承板部11との間が、上部側に組み付けられる外装材20の下端部の少なくとも一部の納め入れられる溝状嵌め合い部16として構成してある。

【0017】次いで、請求項2の発明に係る外装材の取付け金具Aを、前記請求項1の発明に係る取付け金具Aにあって、保持板部12に備えられる係合板部が、支承板部11に対向するように該保持板部12に対して、直交する向き、又は、該保持板部12から前方に向けて傾斜する向きに備えられており、この支承板部11と第1

10

20

30

40

50

係合板部13との間が、下部側に組み付けられている外装材の上端部の少なくとも一部の納め入れられる凹溝状嵌め合い部15又は拡開溝状嵌め合い部15とされ、前記支承板部11と第2係合板部14との間が、上部側に組み付けられる外装材20の下端部の少なくとも一部の納め入れられる凹溝状嵌め合い部16又は拡開溝状嵌め合い部16とされた構成としてある。

【0018】更に、請求項3の発明に係る外装材の取付け金具Aを、前記請求項1の発明に係る取付け金具Aにあって、支承板部11が、脚板部17を備え、且つ、この脚板部17によって、取付け部Bに対して平行、且つ略12mm～25mmの間隔を開けて取付けられる構成としてある。

【0019】また、請求項4の発明に係る外装材の取付け金具Aを、前記請求項3の発明に係る取付け金具Aにあって、支承板部11に備えられる脚板部17を、該支承板部11の両側部から、屈曲又は湾曲される脚片17aと、該脚片17aの先端側から前記支承板部11に平行となるように屈曲状態に延設される添装片17bとによって構成してある。

【0020】更に又、請求項5の発明に係る外装材の取付け金具Aを、前記請求項3の発明に係る取付け金具Aにあって、支承板部11に備えられる脚板部17を、該支承板部11の板面から突設される脚片17a'と、該脚片17a'の先端側から該支承板部11に平行に延設される添装片17b'とによって構成してある。

【0021】次いで又、請求項6の発明に係る外装材の取付け金具Aを、前記請求項4、又は請求項5の発明に係る取付け金具Aにあって、取付け部Bに添装される脚板部17における添装片17b、17b'であって、該脚板部17における脚片17a、17a'から上方に延設されて、支承板部11よりも上方に位置されている添装片17b、17b'部分に、釘、ビスなどの挿通孔18が設けてある構成としてある。

【0022】次いで更に、請求項7の発明に係る外装材の取付け金具Aを、前記請求項1の発明に係る取付け金具Aにあって、下部側に組み付けられる外装材20の上端部の添装される支承板部11に、釘、ビスなどの挿通孔19が設けてあると共に、この外装材20の上端部側の少なくとも一部を納め入れる溝状嵌め合い部15を前記支承板部11と共に構成する第1係合板部13に、該挿通孔19の開設位置を示す印yを付した構成としてある。

【0023】また更に、請求項8の発明に係る外装材の取付け金具Aを、前記請求項1の発明に係る取付け金具Aにあって、下部側に組み付けられる外装材20の上端部の添装される支承板部11が、該外装材20の上端部にある雄実部を構成する立上り凸縁21と、この立上り凸縁21に連続する該外装材20の上部部分を受け得る構成としてある。

【0024】

【発明の実施の形態】以下、本発明に係る典型的な各取付け金具Aの各実施の形態について詳細に説明する。図1～図6は、第1の実施の形態に係る外装材の取付け金具Aを、図7～図10は、第2の実施の形態に係る外装材の取付け金具Aを、図11～図14は、第3の実施の形態に係る外装材の取付け金具Aを、図15～図18は、第4の実施の形態に係る外装材の取付け金具Aを示している。

10 【0025】先ず、図1において、第1の実施の形態に係る取付け金具Aの使用状態を要部の縦断面で、図2では、平断面の状態、図3では、壁Wの主要構成部分を分離斜視の状態を示している。また、図4では、この取付け金具Aを斜視の状態、図5では、これを側面から、図6では、これを正面から見て示している。

20 【0026】次いで、図7は、第2の実施の形態に係る取付け金具Aを、その使用状態の要部縦断面として示し、図8では、これに用いられる取付け金具Aを斜視で、図9では、これを側面から、図10では、これを正面から見て示している。

【0027】更に、図11は、第3の実施の形態に係る取付け金具Aを、その使用状態の要部縦断面として示し、図12では、これに用いられる取付け金具Aを斜視で、図13では、これを側面から、図14では、これを正面から見て示している。

30 【0028】また、図15は、第4の実施の形態に係る取付け金具Aを、その使用状態の要部縦断面として示し、図16では、これに用いられる取付け金具Aを斜視で、図17では、これを側面から、図18では、これを正面から見て示している。

40 【0029】先ず、この実施の形態に係る外装材の取付け金具Aは、柱、間柱などの取付け部Bに対して平行な状態に取付け用いられる支承板部11と、この支承板部11から、この取付け部Bに対する支承板部11の取付け側と反対の側にむけて突設される保持板部12と、この保持板部12の先端側において、互いに反対の側を向き、且つ段違い状態に突設される一対の第1及び第2係合板部とを備え、前記支承板部11に近い側にある第1係合板部13と前記支承板部11との間が、下部側に組み付けられている外装材20の上端部の少なくとも一部の収め入れられる溝状嵌め合い部15とされ、且つ、前記支承板部11から遠い側にある第2係合板部14と前記支承板部11との間が、上部側に組み付けられる外装材20の下端部の少なくとも一部の納め入れられる溝状嵌め合い部16として構成してある。

50 【0030】このように構成された取付け金具Aにあっては、下部側に組付けられる外装材20の上端部分の収め入れられる溝状嵌め合い部15に対して、上部側に組付けられる外装材20の下端部分の収め入れられる溝状嵌め合い部16が幅広に構成されており、外装材20

は、広い受け面を備えた取付け金具Aによって、確実に柱などの取付け部Bに対して止着される。

【0031】また、保持板部12に備えられる第2係合板部14が、この保持板部12に段違い状態で備えられる第1係合板部13よりも先端側、即ち、支承板部11から離れた位置に設けてあり、この結果、第1係合板部13と、第2係合板部14との間に、雨仕舞用の隙間Xを、この取付け金具Aにおける第1係合板部13と第2係合板部14との間の構成空間として構成することができる。

【0032】更に、外装材20の添装面を構成する支承板部11を、取付け部Bに対して、平行な状態に設け、この外装材20と、この外装材20の取付け対象物との間に、一連に連続された空間Hを構成し、外装材20の組付け内側に、空気の滞留空間が生じない構成とすることができる。

【0033】また、取付け金具Aを用いることで、外装材20を、壁下地材、特に、胴縁材を用いることなく、柱、間柱などの構造材に対して、直接取付け可能とし、しかも、この外装材20の取付け内側に、所要の空間Hを構成することができる。

【0034】次いで、前記の取付け金具Aにあって、保持板部12に備えられる係合板部が、支承板部11に対向するように該保持板部12に対して、直交する向き、又は、該保持板部12から前方に向けて傾斜する向きに備えられており、この支承板部11と第1係合板部13との間が、下部側に組み付けられている外装材の上端部の少なくとも一部の納め入れられる凹溝状嵌め合い部15又は拡開溝状嵌め合い部15とされ、前記支承板部11と第2係合板部14との間が、上部側に組み付けられる外装材20の下端部の少なくとも一部の納め入れられる凹溝状嵌め合い部16又は拡開溝状嵌め合い部16とされた構成としたことを、典型的な、他の実施の形態の一つとしている。

【0035】このように構成された取付け金具Aにあっては、外装材20の形態、特に、雄実部と、これに対応する雌実部の嵌め合いの形状、各外装材20、20における雄実部と雌実部の各嵌め合い部における雨仕舞の各態様に対して、効果的に対応できる嵌め合い部を備えた取付け金具を構成することができる。

【0036】更に、前記の取付け金具Aにあって、支承板部11が、脚板部17を備え、且つ、この脚板部17によって、取付け部Bに対して平行、且つ略12mm～25mmの間隔を開けて取付けられる構成としたことを典型的な、他の実施の形態の一つとしている。

【0037】かかる構成よりなる取付け金具Aにあっては、取付け部Bと、これに取付けられる各外装材20との間に、隙間幅12mm～25mmの空間Hを、この外装材20の内側面の全面に亘って連通する態様に構成することができ、これによって、張り込まれる外装材20

の内側に、空気の滞留空間を生ずることがない。

【0038】また、前記の取付け金具Aにあって、支承板部11に備えられる脚板部17を、該支承板部11の両側部から、屈曲又は湾曲される脚片17aと、該脚片17aの先端側から前記支承板部11に平行となるように屈曲状態に延設される添装片17bとによって構成したことを、典型的な、他の実施の形態の一つとしている。

【0039】このように構成された取付け金具Aにあっては、取付け部Bに対して、外装材20の添装取付け面としての支承板部11を、この取付け部Bに対して、確実に平行な状態に構成することができると共に、外装材20の背面を確実に支承できる強固な支承面を、この取付け金具Aにもたすことができる。

【0040】更に又、前記の取付け金具Aにあって、支承板部11に備えられる脚板部17を、該支承板部11の板面から突設される脚片17a'と、該脚片17a'の先端側から該支承板部11に平行に延設される添装片17b'とによって構成したことを典型的な、他の実施の形態の一つとしている。

【0041】このように構成された取付け金具Aにあっては、添装片17b'が長幅に構成され、そのいずれかの面で、取付け部Bの面に添装状態に止着されていれば良く、取付け部Bの取付け面の各態様に対して、効果的に即応することができる。

【0042】次いで又、前記の取付け金具Aにあって、取付け部Bに添装される脚板部17における添装片17b、17b'であって、該脚板部17における脚片17a、17a'から上方に延設されて、支承板部11よりも上方に位置されている添装片17b、17b'部分に、釘、ビスなどの挿通孔18が設けたことを、典型的な他の実施の形態の一つとしている。

【0043】このように構成された取付け金具Aにあっては、取付け外装材20、あるいは、外装材20の取付け支承板部11に妨げられることなく、取付け金具Aを、取付け部Bに対して、容易、且つ、確実に添装、取付けることができる。

【0044】次いで更に、前記の取付け金具Aにあって、下部側に組み付けられる外装材20の上端部の添装される支承板部11に、釘、ビスなどの挿通孔19が設けてあると共に、この外装材20の上端部側の少なくとも一部を納め入れる溝状嵌め合い部15を前記支承板部11と共に構成する第1係合板部13に、該挿通孔19の開設位置を示す印Yを付した構成としたことを、典型的な、他の実施の形態の一つとしている。

【0045】このように構成された取付け金具Aにあっては、取付け金具Aに添装される外装材20を、この外装材20の雄実部において、直接、取付け部Bに対して、ビス、釘などによって、確実に止着することができると共に、このビス、釘などによる外装材20の取付け

を容易にすることができ。

【0046】また更に、前記の取付け金具Aにあって、下部側に組み付けられる外装材20の上端部の添装される支承板部11が、該外装材20の上端部にある雄実部を構成する立上り凸縁21と、この立上り凸縁21に連続する該外装材20の上部部分を受け得る構成としたことを、更に他の典型的な実施の形態の一つとしている。

【0047】このように構成された取付け金具Aにあっては、これに取付けられる外装材20における雄実部と共に、この雄実部に続く実部の備わっていない外装材本体部分、即ち、充分な板厚を備えた部分を、この取付け金具Aにおける支承板部11に添装、組付けることができる。

【0048】先ず、この実施の形態に係る取付け金具Aを用いたサイジング材などの外装材20の取付けによって構成される壁Wは、土台などに起立して備えられた柱、間柱30などを取付け部Bとして、この取付け部Bの外側に面した面に対し、その下部側から、上部側に向けて順次に、外装材20を取付け構成してある。

【0049】かかる外装材20の組付け構成される壁Wは、例えば、柱、間柱30における室内側に防水シート31を介し化粧ボード32などの内装材を張り設けてあると共に、ガラスウールなどの断熱材33を、この柱、間柱30などの構成する構造材空間に介装し、この断熱材33の外側面に、防水シート34を被装した状態で、この柱、間柱30に対して、前記取付け金具Aを用いて、外装材20を、所定の空間Hを介して備えつけた構成としてある。

【0050】ここで、取付け金具Aによって、柱、間柱30などの取付け部Bに取付け用いられる外装材20は、例えば、サイジング材などのような家屋などの壁、特に外壁を構成するものであれば、ボード、パネルなどいかなる態様のものであっても良く、材質的には窯業系外装材などを典型例とし、いかなる材質で構成されていても良く、例えば、珪酸カルシウム板、スラグセメント板、木毛セメント板などの無機質系ボード材、各種セラミックボード材などが典型的に用いられる。

【0051】ここで用いられる外装材20は、長方形のボード材を横向きにして用いているものであって、外装材20の上端及び下端を構成する長さ方向にある縁に沿って雄実と、雌実とを夫々備えさせた構成としてあり、この外装材20を順次に、下段から上段に向けて、夫々の実部を重ね合わせるようにして張り込むことによって、相じゃくりの、箱目地張り状態に張り込まれる外装材の態様に構成してある。

【0052】かかる外装材20は、上端の長さ方向にある取付け面側、即ち取付け金具Aに添装される面に沿って、雄実となる立上り凸縁21を、この立上り凸縁21の前面を切欠き状態の凹段部22とすることで構成してある。また、この外装材20は、下端の長さ方向にある

取付け面側に、前記立上り、凸縁21の収まり入る雌実となる凹段縁23を、この凹段縁23の前面にあって、この立上り凸縁21を覆い隠すように構成される垂下凸縁24によって構成してある。

【0053】更に、前記凹段縁23にあっては、この凹段縁23における天井面、より分り易くは、取付け金具Aによって、外装材20を保持する際に、この取付け金具Aに支承される外装材20の下端面23a部分が、追って説明する取付け金具Aの溝状嵌め合い部16内に収まり入るように、前記垂下凸縁24における凹段縁23側にある垂下面24aの延長線上に割溝25が設けてあり、この割溝25によって区分された部分を、下端面23a部分を含んで、嵌め合い凸部26として構成してある。

【0054】(1) 第1の実施の形態に係る取付け金具先ず、図1～図6で示される第1の実施の形態に係る取付け金具Aについて説明する。この第1の実施の形態に係る取付け金具Aは、下段に組付けられる外装材20の上部の添装される板部11aと、上段に組付けられる外装材20の下端の添装される板部11bとを、一連の、この図示例にあっては、一枚の平板状の板部として構成した支承板部11と、この支承板部11の上下端から、この支承板部11に対して、一連に延設されると共に、互に、先端側を、順次離れる向きに上げられた、即ち台形状態をなす態様に備えられた脚板部17と、前記支承板部11の外側面にあって、この外側面から略直角に、この支承板部11と一体に突き出し構成されている水平な保持板部12と、この保持板部12から下方に向けて突設されている第1係合板部13と、この第1係合板部13より前方に位置して、前記保持板部12から上方に向けて突設されている第2係合板部14とを備えた構成としてある。

【0055】ここで構成される脚板部17は、前記支承板部11の上端から斜め上方に突き出す脚片17aと、下端から斜め下方に突き出す脚片17aと、この夫々の脚片17a、17aから、互に先端側を離れる側に向けて屈曲状態に延設された添装片17b、17bとによって構成してあり、この添装片17b、17bが、前記支承板部11に対して平行となる構成とし、これによって、取付け部Bに対して、取付け金具Aの支承板部11が平行に組付けられる構成としてある。

【0056】かかる脚板部17における脚片17aの突き出し幅を、この取付け金具Aに備えつけられる外装材20と、取付け部Bとの間に、空気の滞留を生じない空間Hを構成するに必要な寸法として、取付け金具Aを用いた外装材20の取付けに際して、この外装材20と、取付け部B、この図示例にあっては、防水シート34との間に、結露の発生などの原因とされる空気の滞留を十分に防ぎ得る連通空間Hを構成するようにしてある。かかる点から、前記脚板部17によって、支承板部11か

ら、取付け部Bとの間に、略12mm～25mmの間隔を生ずるように、当該脚板部17を構成する。

【0057】また、この取付け金具Aを、柱、間柱30などの取付け部Bに対して、釘、ビスなどの止着手段35で止着するための挿通孔18を、少なくとも支承板部11よりも上方に位置されている添装片17b部分に設けてあり、外装材20の取付けに用いられる支承板部11に妨げられることなく、この取付け金具Aを、取付け部Bに対して、確実、容易に止着することができる。

【0058】次いで、支承板部11から、略水平の向きに突き出される保持板部12は、その先端側に、上下方向に突き出す第1係合板部13と、第2係合板部14とを、互に段違いの状態の有している。即ち、この保持板部12の下面から下向き、且つ、前方に突き出す第1係合板部13を有し、且つ、この第1係合板部13よりも該保持板部12の前方にあって、この保持板部12の先端上面から、上向き、且つ前方に突き出す第2係合板部14とを備えた構成としてある。

【0059】かかる構成よりなる保持板部12にあっては、この第1係合板部13と、第2係合板部14の夫々の突設基部間に、隙間xを構成する間隔が生ずるよう

に、この第1係合板部13と、第2係合板部14を備えた構成としてある。

【0060】かかる保持板部12の下面先端側に備えられる第1係合板部13は、この第1係合板部13と、前記支承板部11との間に、下段側にある外装材20の上端、特に、立上り凸縁21の密に収まり入る下面開口の溝状嵌め合い部15が、その開口側を漸次拡開した態様に設けてある。また、保持板部12の先端に備えられる第2係合板部14は、この第2係合板部14と、前記支承板部11との間に、上段側にある外装材20の下端、特に、凹段縁23の下端面23aを含む嵌め合い部26の密に収まり入る上面開口の溝状嵌め合い部16が、その開口側を漸次拡開するように設けてある。

【0061】かかる取付け金具Aにあって、外装材20の上端部分と、下端部分とを、夫々に支承する支承板部11は、保持板部12によって区分される上部側にある板部11bと、これの下部側にある板部11aのいずれにあって、この外装材20における夫々の実部と共に、この実部に続く非実部を合せて添装支承できる広さを備えたものとして構成してある。

【0062】即ち、板部11aにあっては、この板部11aに添装される外装材20の上端部分が、その立上り凸縁21と、これに続く、外装材20の本体部分と共に支承できる広がりをもったものとして構成してあると共に、この板部11aに添装された外装材20を、その立上り凸縁21部分において、釘、ビスなどの止着手段36によって直接、柱、間柱30などの取付け部Bに対して止着できるように、この板部11aに挿通孔19を設けてある。

【0063】また、かかる止着手段36による外装材20の取付けにあって、この外装材20を、容易、且つ確実に、柱、間柱30などの取付け部Bに対して止着できるように、この外装材20の嵌めつけられる第1係合板部13の上面に前記板部11aに開設されている各挿通孔19…19の夫々に対応した目印yを、この挿通孔19…19の直上に位置するように設けてある。

【0064】更に、前記支承板部11における保持板部12の上方に位置づけられる板部11bにあって、外装材20における嵌め合い凸部26と、これに連続している外装材20の本体部分が、この嵌め合い凸部26と共に支承される広がりをもった構成としてある。

【0065】かくして構成される取付け金具Aにあっては、下段側に組付けられる外装材20における立上り凸縁21に対し、この取付け金具Aを、この立上り凸縁21が、取付け金具Aにおける溝状嵌め合い部15内に収まるように組付けると共に、取付け金具Aにおける脚板部17における添装片17bを止着手段35によって、取付け部Bに対して止着する。かかる取付け部Bに対して組付けられた外装材20は、この取付け金具A間にあって、位置の矯正を受けて、その上端、特に、立上り凸縁21部分を、止着手段36によって、直接、取付け部Bに対して止着される。

【0066】このようにして取付け金具Aに外装材20を組付けた後、上端側に組付けられる外装材20の下端部分、特に、嵌め合い凸部26を、この取付け金具Aにおける溝状嵌め合い部16内に納め入れると共に、垂下凸縁24が、隙間xを隔てて、前記下部側に組付けられている外装材20における立上り凸縁21の前方を覆うように、上部側の外装材20を組付ける。

【0067】かくして、取付け金具Aを用いて構成される壁Wにあっては、外装材20が、相じやくりの、箱目地張の態様に、柱、間柱30に対して止着され、この各張り込み外装材20、20間に雨仕舞に都合の良い隙間xを構成すると共に、柱、間柱30などの取付け部Bとの間に、空気の滞留を防ぐ空間Hを備えた構成とする。

【0068】かかる外装材20、20間に構成される隙間xは、下段側に組付けられている外装材20における凹段縁22と、上部側に組付けられている外装材20における凹段縁23と、上部側に組付けられている外装材20における垂下凸縁24とのなす間隙として構成されるものであって、より詳細には、立上り凸縁21に対する垂下凸縁24の突き出し寸法を小さくすることによって、凹段縁22と、垂下凸縁24の下端面との間で構成される水平な溝状隙間x'と、溝状嵌め合い部15に嵌めつけられる立上り凸縁21と、溝状嵌め合い部16に嵌め合った嵌め合い凸部26の前方から垂設されている垂下凸縁24との間に、前記第1及び第2係合板部14の突設段差としてもたらされる垂直な溝状隙間x''を構成してある。

【0069】かくして構成される隙間 x' 、 x'' は、溝状嵌め合い部15に対する下段側外装材20の立上り凸縁21の嵌めつけと、溝状嵌め合い部16に対する上段側外装材20の嵌め合い凸部26の嵌めつけに伴って、この外装材20の取付け金具Aにおける保持板部12、第1係合板部13、及び第2係合板部14とによって画然と構成することができる。尚、図中37は、この隙間 x 、特に、垂直方向にある隙間 x'' に対する雨水の吹き込みを防止するシーリング材を示している。

【0070】(2) 第2の実施の形態に係る取付け金具 10
図7～図10は、第2の実施の形態に係る取付け金具Aを示している。この第2の実施の形態に係る取付け金具Aにおいては、前記第1の実施の形態に係る取付け金具Aにおける脚板部17、特に、脚片17aを、その先端側が、漸次互に近づく向きに窄まる態様の脚片17aとし、従って、この互に近づく向きに窄められた脚片17aにおける窄まり幅に見合せて、添装片17bを広目に構成した以外の構成を前記第1の実施の形態に係る取付け金具Aと同一、又は実質的に同一の構成としてある。また、この取付け金具Aによる外装材20の取付け手法も、前記第1の実施の形態に係る外装材20の取付け手法と同一、又は実質的に同一としてある。

【0071】従って、この第2の実施の形態に係る取付け金具Aにおいて、前記第1の実施の形態に係る外装材20の取付け金具Aと同一、又は実質的に同一の構成部分については、同一の番号を付して、その説明を省略する。

【0072】この第2の実施の形態に係る外装材の取付け金具Aにおいては、支承板部11の上下端から、その先端側が、漸次、互に近づくように屈曲状態に延設された一対の脚片17aと、この一対の脚片17aの側端から、互に反対の側に向けて夫々屈曲状態に延設された添装片17bとにより脚板部17を構成してある。

【0073】かかる脚板部17を備えた取付け金具Aにおいては、コンパクトな構成の金具形状において、取付け部Bに対する取付け面を広目に構成することが可能とされる。

【0074】(3) 第3の実施の形態に係る取付け金具 10
図11～図14は、第3の実施の形態に係る取付け金具Aを示している。この第3の実施の形態に係る取付け金具Aは、支承板部11の背面側、即ち、保持板部12の突き出し側と反対の側に向けて、この支承板部11に対して直交する向きの脚片17a'を設け、この脚片17a'の先端側に、この脚片17a'に直交する向きの、即ち、前記支承板部11に平行な添装片17bを設けると共に、この添装片17b'に、前記支承板部11の挿通孔19から挿通され、釘、ビスなどの止着手段36の挿通される孔38を開設した以外の構成を、前記第1の実施の形態に係る取付け金具Aと同一、又は実質的に同一の構成としている。又、止着手段36による外装材20

0の取付けにあって、この止着手段36を、外装材20から挿通孔18と、孔38とを介して取付け部Bの柱、間柱30に対して、止着するようにした以外の組付けを、前記第1の実施の形態に係る外装材20の取付け手法と同一、又は実質的に同一としてある。

【0075】従って、この第3の実施の形態に係る外装材20の取付け金具Aにおいて、前記第1の実施の形態に係る外装材の取付け金具Aと同一、又は実質的に同一の構成部分については、同一の番号を付して、その説明を省略する。

【0076】この第3の実施の形態に係る取付け金具Aにおいては、脚板部17を構成する添装片17b'が、支承板部11よりも広目に構成してあり、しかも、この添装片17b'と、支承板部11とが、略平行となるように、水平の、且つ1枚の脚片17a'で一体的に連設構成してあることから、構成される取付け金具Aの高張力に対する添装片17b'の添装面を広目に構成することが可能とされる。

【0077】(4) 第4の実施の形態に係る取付け金具 10
図15～図18は、第4の実施の形態に係る外装材の取付け金具を示している。この第4の実施の形態に係る外装材の取付け金具Aは、保持板部12に備えられる第1係合板部13と、第2係合板部14とを、この保持板部12に対して、夫々直交する向きに突設した以外の構成を、前記第1の実施の形態に係る外装材の取付け金具Aと同一、又は実質的に同一の構成としてある。また、この取付け金具Aを用いた外装材20の取付け手段を、前記第1の実施の形態に係る取付け金具Aと同一、又は実質的に同一としている。

【0078】従って、この第4の実施の形態に係る外装材20の取付け金具において、前記第1の実施の形態に係る取付け金具Aと同一、又は実質的に同一の構成部分については、同一の番号を付してその説明を省略する。

【0079】この第4の実施の形態に係る取付け金具Aにおいては、保持板部12の下面側にあって、その途中から突設される第1係合板部13を、この保持板部12に直交した状態、即ち、この保持板部12から直角に垂設された構成とし、また、該保持板部12の先端から、上方に起立される第2係合板部14を、この保持板部12から直角に屈曲した立上り突片として構成し、これによって、立上り凸縁21と、嵌め合い凸部26の夫々に収まり入る溝状嵌め合い部15、16を、共に対向する平行溝壁を備えたものとして構成してある。

【0080】このように構成された取付け金具Aにおいては、これによって組付けられる外装材20における立上り凸縁21及び嵌め合い凸部26を、夫々の内側角が90度をなす角形に構成することができると共に、上部に備えつけられる外装材20における垂下凸縁24を構成する部分以外の下端部分を、嵌め合い凸部26として構成することができる。また、この取付け金具Aにお

る第1係合板部13と、第2係合板部14の突設位置を、外装材20相互の各取付け重なり面間に構成される隙間x、特に垂直方向の隙間x”の構成手段として、目的意識をもって設定することができる。

【0081】

【発明の効果】本発明に係る外装材の取付け金具Aは、叙上における特長ある構成、特に、柱、間柱などの取付け部Bに対して平行な状態に取付け用いられる支承板部11と、この支承板部11から、この取付け部Bに対する支承板部11の取付け側と反対の側にむけて突設される保持板部12と、この保持板部12の先端側において、互いに反対の側を向き、且つ段違い状態に突設される一対の第1及び第2係合板部とを備え、しかも、前記支承板部11に近い側にある第1係合板部13と前記支承板部11との間が、下部側に組み付けられている外装材20の上端部の少なくとも一部の収め入れられる溝状嵌め合い部15とされ、且つ、前記支承板部11から遠い側にある第2係合板部14と前記支承板部11との間が、上部側に組み付けられる外装材20の下端部の少なくとも一部の納め入れられる溝状嵌め合い部16として構成してあることから、下部側に組付けられる外装材20の上端部分の収め入れられる溝状嵌め合い部15に対して、上部側に組付けられる外装材20の下端部分の収め入れられる溝状嵌め合い部16が幅広に構成され、この結果、外装材20は、広い受け面を備えた取付け金具Aによって、確実に柱などの取付け部Bに対して止着できる特長を有している。

【0082】また、保持板部12に備えられる第2係合板部14が、この保持板部12に段違い状態で備えられる第1係合板部13よりも先端側、即ち、支承板部11から離れた位置に設けてあり、この結果、第1係合板部13と、第2係合板部14との間に、雨仕舞用の隙間xを、この取付け金具Aにおける第1係合板部13と第2係合板部14との間の構成空間として構成することができる特長を有している。

【0083】更に、外装材20の添装面を構成する支承板部11を、取付け部Bに対して、平行な状態に設け、この外装材20と、この外装材20の取付け部Bとの間に、一連に連続された空間Hを構成し、外装材20の組付け内側に、空気の滞留空間が生じない構成とすることができる特長を有している。

【0084】また、取付け金具Aを用いることで、外装材20を、壁下地材、特に、胴縁材を用いることなく、柱、間柱などの構造材に対して、直接取付け可能とし、しかも、この外装材20の取付け内側に、所要の空間Hを構成することができる特長を有している。

【図面の簡単な説明】

【図1】第1の実施の形態に係る取付け金具を用いて外装材を取付けた状態を示す要部縦断面図

【図2】同要部平断面図

【図3】同取付け対象壁部の要部構成部材を分離して示す要部斜視図

【図4】同取付け金具の斜視図

【図5】同側面図

【図6】同正面図

【図7】第2の実施の形態に係る取付け金具を用いて外装材を取付けた状態を示す要部縦断面図

【図8】同取付け金具の斜視図

【図9】同側面図

【図10】同正面図

【図11】第3の実施の形態に係る取付け金具を用いて外装材を取付けた状態を示す要部縦断面図

【図12】同取付け金具の斜視図

【図13】同側面図

【図14】同正面図

【図15】第4の実施の形態に係る取付け金具を用いて外装材を取付けた状態を示す要部縦断面図

【図16】同取付け金具の斜視図

【図17】同側面図

【図18】同正面図

【図19】従来の外装材の取付け状態を示す縦断面図

【図20】同要部拡大断面図

【符号の説明】

11 支承板部

12 保持板部

13 第1係合板部

14 第2係合板部

15 溝状嵌め合い部

16 溝状嵌め合い部

17 脚板部

17a 脚片

17a' 脚片

17b 添装片

17b' 添装片

18 挿通孔

19 挿通孔

20 外装材

A 取付け金具

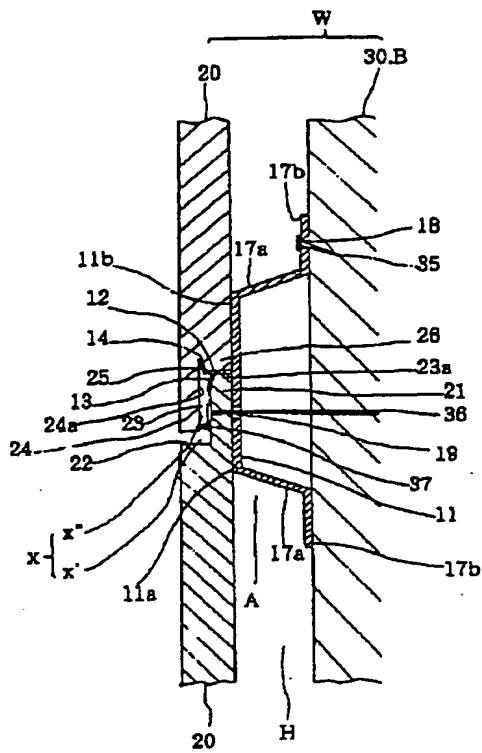
B 取付け部

H 空間

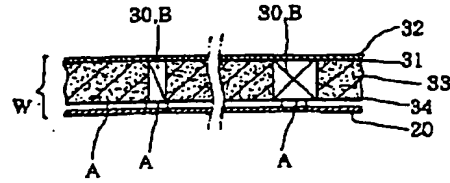
x 隙間

y 印

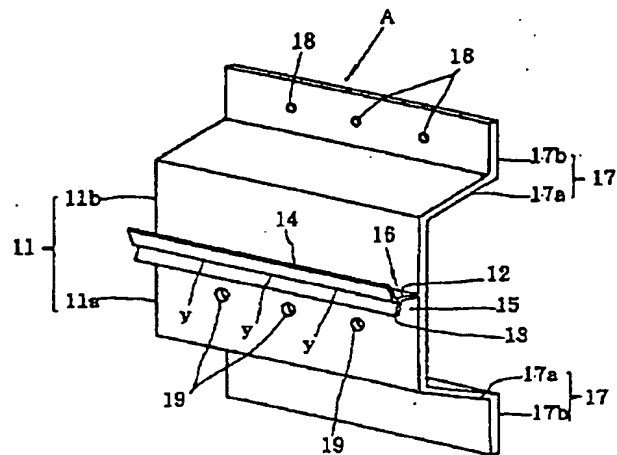
【図1】



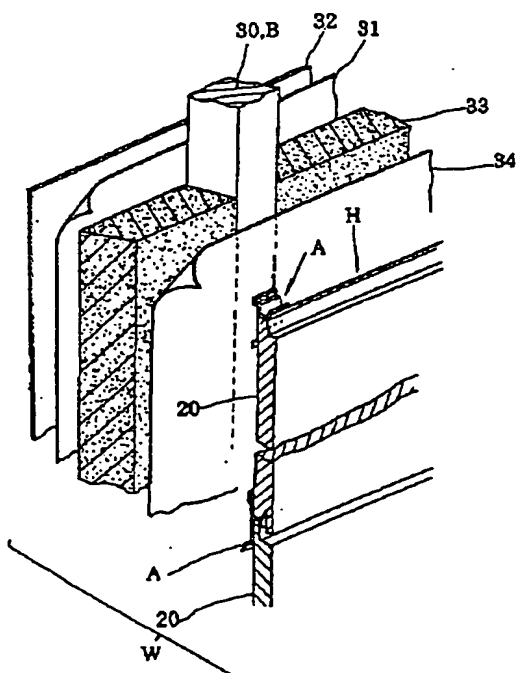
【図2】



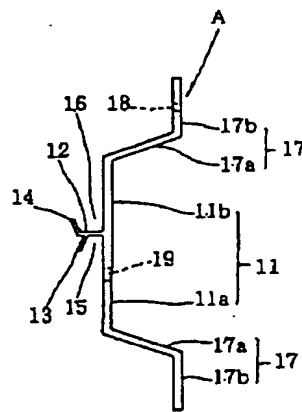
【図4】



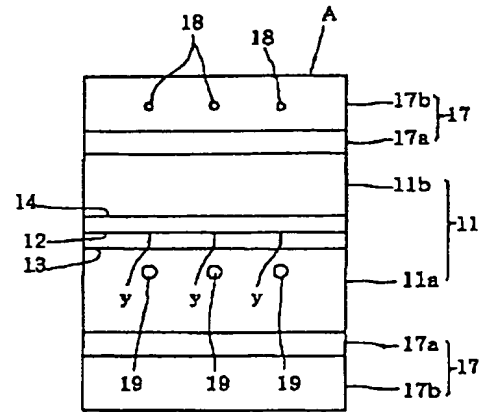
【図3】



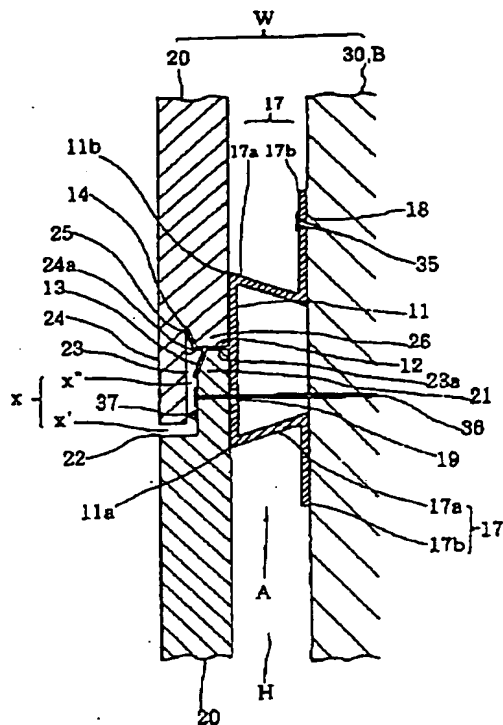
【図5】



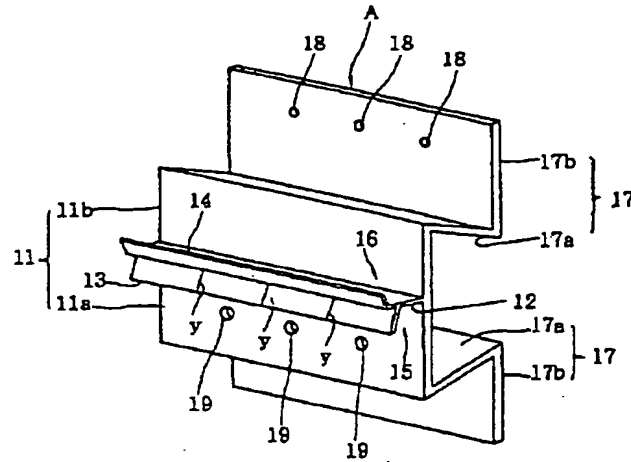
【図6】



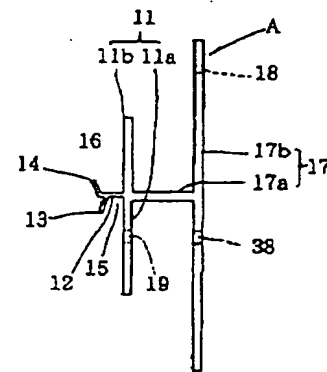
【図7】



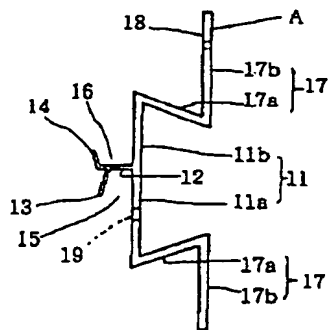
【図8】



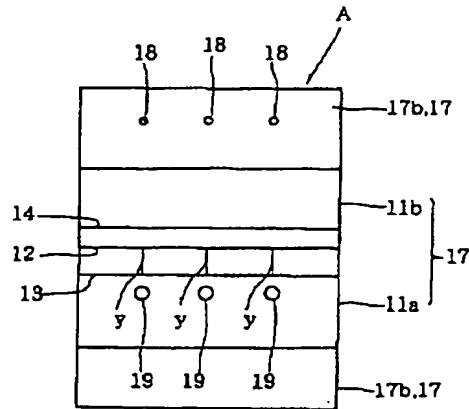
【図13】



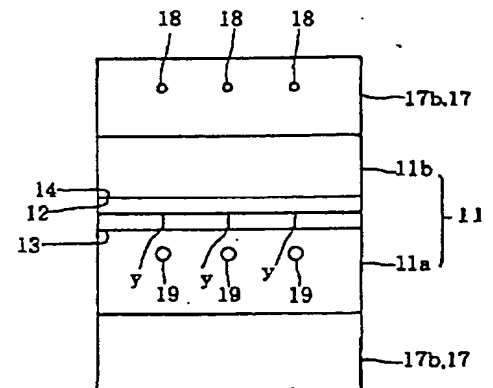
【図9】



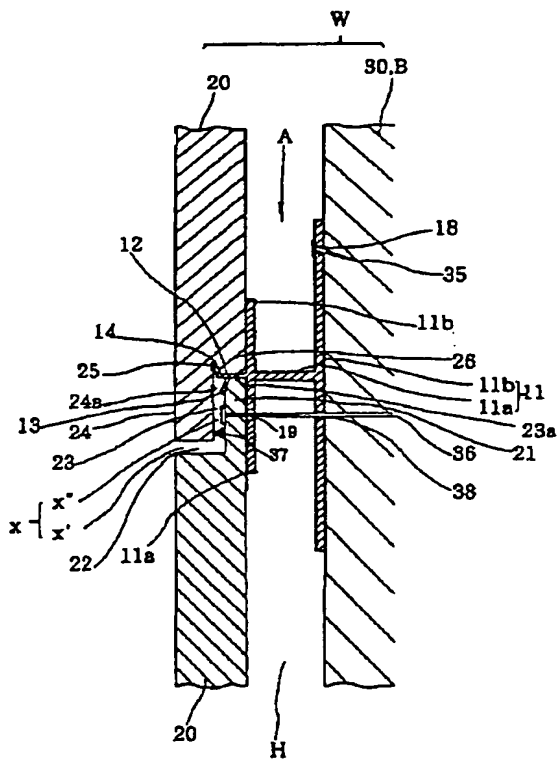
【図10】



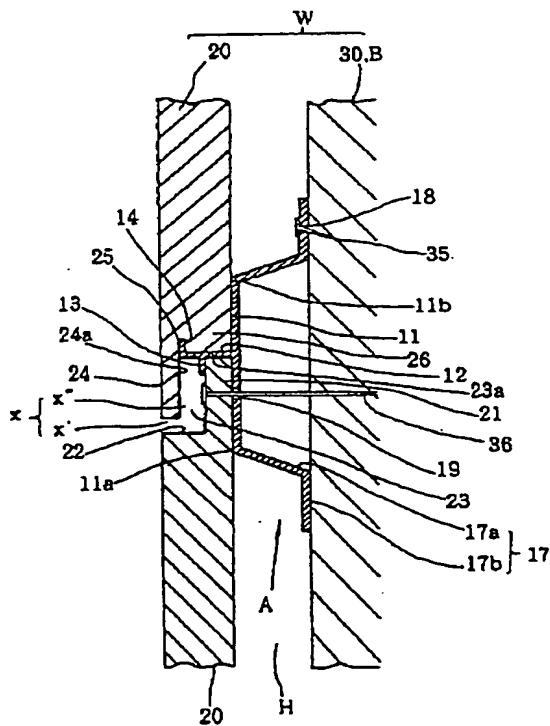
【図14】



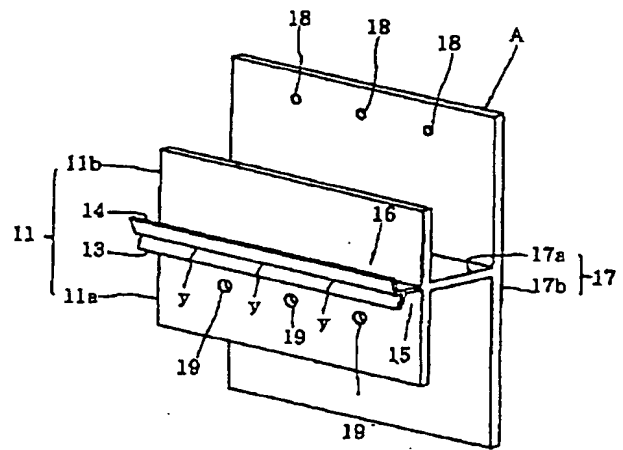
【図11】



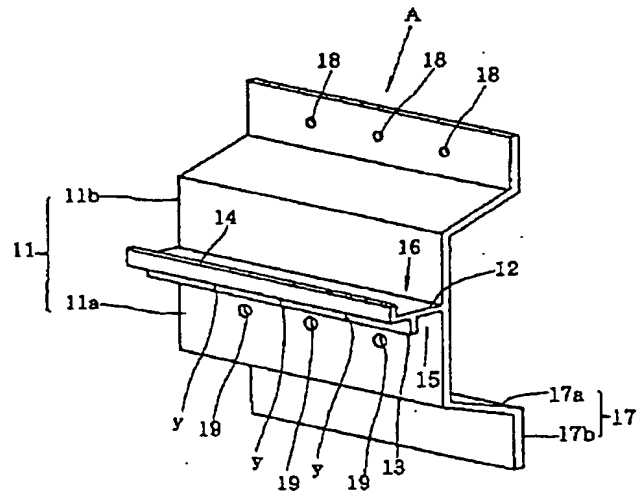
【図15】



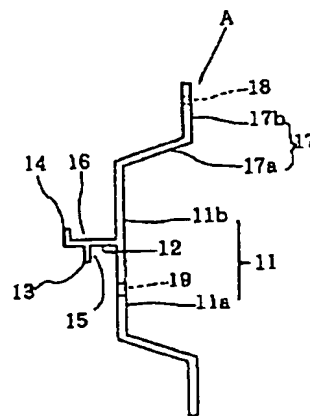
【図12】



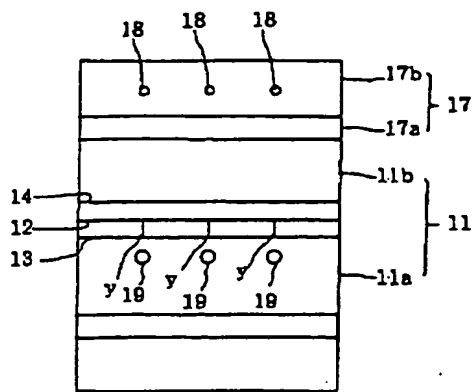
【図16】



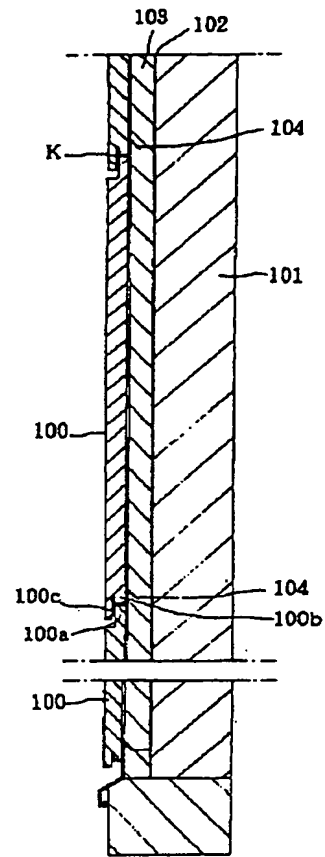
【図17】



【図18】



【図19】



【図20】

